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*Education
and Research*

**A Study Team Report
to the Task Force on Program Review**

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EDUCATION AND RESEARCH

**A STUDY TEAM REPORT
TO THE TASK FORCE
ON PROGRAM REVIEW**

NOVEMBER 1985



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Available in Canada through

Authorized Bookstore Agents
and other bookstores

or by mail from

Canadian Government Publishing Centre
Supply and Services Canada
Ottawa, Canada K1A 0S9

Catalogue No. CP32-50/16-1985E

Canada: \$17.50

ISBN 0-660-11986-2

Other Countries: \$21.00

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FOREWORD

The Task Force on Program Review was created in September 1984 with two major objectives - better service to the public and improved management of government programs. Recognizing the desirability of involving the private sector in the work of program review, assistance from national labour, business and professional organizations was sought. The response was immediate and generous. Each of these national organizations selected one of their members to serve in an advisory capacity. These public spirited citizens served without remuneration. Thus was formed the Private Sector Advisory Committee which has been responsible for reviewing and examining all of the work of program review.

The specific program reviews have been carried out by mixed study teams composed of a balance of private sector and public sector specialists, including representatives from provincial and municipal governments. Each study team was responsible for the review of a "family" of programs and it is the reports of these study teams that are published in this series. These study team reports represent consensus, including that of the Private Sector Advisory Committee, but not necessarily unanimity among study team members, or members of the Private Sector Advisory Committee, in all respects.

The review is unique in Canadian history. Never before has there been such broad representation from outside government in such a wide-ranging examination of government programs. The release of the work of the mixed study teams is a public acknowledgement of their extraordinarily valuable contribution to this difficult task.

Study teams reviewed existing evaluations and other available analyses and consulted with many hundreds of people and organizations. The teams split into smaller groups and consulted with interested persons in the private sector. There were also discussions with program recipients, provincial and municipal governments at all levels, from officials to cabinet ministers. Twenty provincial officials including three deputy ministers were members of various study teams.

The observations and options presented in these reports were made by the study teams. Some are subjective. That was necessary and appropriate considering that the review phase of the process was designed to be completed in a little more than a year. Each study team was given three months to carry out its work and to report. The urgent need for better and more responsive government required a fresh analysis of broad scope within a reasonable time frame.

There were several distinct stages in the review process. Terms of reference were drawn up for each study team. Study team leaders and members were appointed with assistance from the Private Sector Advisory Committee and the two Task Force Advisors: Mr. Darcy McKeough and Dr. Peter Meyboom. Mr. McKeough, a business leader and former Ontario cabinet minister, provided private sector liaison while Dr. Meyboom, a senior Treasury Board official, was responsible for liaison with the public sector. The private sector members of the study teams served without remuneration save for a nominal per diem where labour representatives were involved.

After completing their work, the study teams discussed their reports with the Private Sector Advisory Committee. Subsequently, their findings were submitted to the Task Force led by the Deputy Prime Minister, the Honourable Erik Nielsen. The other members are the Honourable Michael Wilson, Minister of Finance, the Honourable John Crosbie, Minister of Justice, and the President of the Treasury Board, the Honourable Robert de Cotret.

The study team reports represent the first orderly step toward cabinet discussion. These reports outline options as seen by the respective study teams and present them in the form of recommendations to the Task Force for consideration. The reports of the study teams do not represent government policy nor are they decisions of the government. The reports provide the basis for discussion of the wide array of programs which exist throughout government. They provide government with a valuable tool in the decision-making process.

Taken together, these volumes illustrate the magnitude and character of the current array of government programs and present options either to change the nature of these programs or to improve their management. Some decisions were announced with the May budget speech, and some subsequently. As the Minister of Finance noted in the May

budget speech, the time horizon for implementation of some measures is the end of the decade. Cabinet will judge the pace and extent of such change.

These study team reports are being released in the hope that they will help Canadians understand better the complexity of the issues involved and some of the optional solutions. They are also released with sincere acknowledgement to all of those who have given so generously of their time and talent to make this review possible.

TERMS OF REFERENCE

BACKGROUND

Within the federal government, in 1984/85, there are about 109 programs, costing an estimated \$6 billion, aimed at directly or indirectly supporting elementary and secondary school education and education and research in universities and colleges. Post-secondary education accounts for the largest portion of this. These figures do not include federal contributions to vocational training or to developmental activities not associated with research.

Direct federal support to education and research in 1984/85 amounts to about \$1.8 billion. This support is in numerous forms, encompassing student aid, research grants from departments to post-secondary institutions and research grants from the three federal granting councils, tax exemptions, grants to institutions, direct management of educational institutions, and other forms. In the diverse group of direct services are: the Canada Student Loans Plan (\$229 million); departmental support for research and development through educational institutions (\$606 million); the Natural Sciences and Engineering Research Council (\$312 million); the Social Sciences and Humanities Research Council (\$63 million); the Medical Research Council (\$157 million); schooling provided by the Solicitor General's Department and the Department of Indian Affairs and Northern Development; and the schooling provided by the Department of National Defence at elementary and secondary levels as well as the military colleges. A number of tax exemptions, including the income tax exemption for tuition fees, and sales and import tax exemptions for various educational items, are valued at about \$195 million.

Transfers by the federal government to the provinces and territories include a substantial amount related to education. The major transfer is through the Established Programs Financing (EPF) arrangement under the Federal-Provincial Fiscal Arrangements and Federal Post-secondary Education and Health Contributions Act, 1977. Of the total \$14.7 billion transferred under Established Programs Financing, consisting of \$6.4 billion by way of tax point transfers and \$8.3 billion in cash payments, \$4.2 billion is related to post-secondary education. There are differing views with respect to the

degree of flexibility provinces should use in employing this transfer for health or other provincial purposes rather than for post-secondary education exclusively. A further transfer of \$207 million to the provinces is for the support of official languages at all levels of education.

Many in the post-secondary community and the various research communities are describing the financial constraints they now face as extreme or even intolerable. An unforeseen rise in post-secondary enrolments is partly responsible for the pressures experienced.

TERMS OF REFERENCE

Post-secondary education and research influence all aspects of the Canadian economy and society. The study team will examine the various federal programs in support of education and research to ensure the maximum benefit of this crucial investment.

The objective of this study is to assist the Ministerial Task Force to produce a profile of government programs in each department which are simpler, more understandable and more accessible to their clientele, and which ensure that decision-making is decentralized as far as possible to those in direct contact with client groups.

The study will cover the federal government's programs which offer or support formal education and research and development taking place in, or in association with, educational institutions. The study will not consider federal support programs for vocational training.

The terms of reference distinguish between federal support for the programs operated or supported by the provincial and territorial governments, and those programs operated by the federal government.

With respect to the federal support for the programs of education and research operated or supported by the provinces and territories, the study team is asked:

- to provide ministers with an overview of the federal role, its history and evolution, and the current concerns in the post-secondary education and research systems in Canada;

- to provide ministers with an overview of federal support to provinces for aspects of elementary and secondary education such as official languages education and instruction;
- to convey to the ministers an understanding of provincial and territorial views gained from consultation with provinces and territories;
- to determine whether the federal objectives for these supporting programs are clearly defined and appropriate; the extent to which these objectives are being realized; and whether they could be met in a manner which is more efficient and more comprehensible to the public; and
- to recommend to ministers any measures which would increase the effectiveness of the federal support, bearing in mind the federal government's general commitment to fiscal restraint.

With respect to the education and research programs operated exclusively by the federal government, the study team is asked to identify:

a. Beneficiaries:

- the beneficiaries of the direct federal programs of support to elementary, secondary, college and university education and research;
- the distribution of expenditures in relation to geographic, economic and demographic realities and needs;
- beneficiaries of federal programs who are also beneficiaries of provincial and other programs;
- the implications for beneficiaries of any recommended program changes;
- areas within the federal jurisdiction that are inadequately served; and
- the overall allocation of research supports by disciplines;

b. Efficiency and Overlap:

- cases where individuals or groups are beneficiaries of several benefits or services, including tax expenditures and programs of provincial governments, and where the programs are:
 - complementary,
 - working at cross-purposes,
 - substantial duplications or overlaps;
- programs which are particularly troublesome to beneficiaries in terms of red tape, paper work and delays;
- programs that might be eliminated, expanded, reorganized, reduced in scope or consolidated, bearing in mind the federal government's general commitment to fiscal restraint;
- the quality of forecasting, planning and consultation;
- a summary overview of the legislation that would be required to implement any of these program changes;
- the resource implications of any recommended program changes, including changes in resource levels and the number and location of either increases or decreases in staff; and
- the relevancy of these programs in terms of current federal objectives.

GAPS AND OMISSIONS

The terms of reference will be adjusted, if necessary, to include programs which may have been inadvertently omitted from the inventory, but which should have been taken into account.

LINKAGES WITH OTHER STUDIES

The team will identify for the Ministerial Task Force any education and research related issues or programs that have been reviewed by previous Task Force teams, or are in the process of being reviewed through other means, where it

is the judgement of the team that important education and research questions were either not addressed in the initial review or that a "second opinion" would be useful for ministers.

ACCESS TO INFORMATION AND DATA SOURCES

The study team will have access to all evaluations, reviews and reports on education and research programs prepared over the past several years, as well as any other existing information and data from central agencies and services and programs organizations.

A review of this information will be conducted by the study team and if additional data are required, program departments will be requested by the study team, on behalf of the Ministerial Task Force, to collect such data.

COMMUNICATION WITH DEPARTMENTS

These terms of reference have been developed in consultation with senior officials of the Departments of Finance and Secretary of State, and of the Ministry of State for Science and Technology and the Federal-Provincial Relations Office.

Ministers of those departments directly affected by this review will be advised which programs under their jurisdiction will be reviewed.

In addition, the study team will initiate appropriate liaison and consultation with deputy ministers and senior managers whose programs are affected by the study.

COMMUNICATIONS WITH OTHERS

The study team will consult with a cross section of interested and relevant organizations and institutions, to the extent of the time available.

COMPOSITION OF THE STUDY TEAM

The study team will be led by a senior provincial government official, who will be appointed in consultation with the departments most closely affected by this program assessment. The Team Director will report to both the Public Sector Advisor and the Private Sector Liaison Advisor serving the Chairman of the Task Force.

In addition, the team will consist of a deputy team leader and six other members drawn from the federal and non-federal sectors. Research assistants may be added to the team as appropriate.

WORK PLAN

Following approval of its Terms of Reference and after a review of available evaluations and assessments of programs identified for review, the study team will submit for consideration by the minister a detailed work plan showing the revised program listing, the organization by sub-teams, the activities to be undertaken and the schedule for accomplishing the work required.

REPORT SCHEDULE

The study team is requested to submit its interim report to the Ministerial Task Force on September 4, 1985 and a final report on November 8, 1985. In addition, the Task Force will receive brief progress reports on the work of this and other study teams at all regular meetings.

PRELIMINARY LIST OF PROGRAMS AND RESOURCES OF EDUCATION AND RESEARCH

DEPT.	PN	TITLE	1984/85 RESOURCES (\$000s)	
			OPERATING	CAPITAL
Agr		Agriculture Subsid. Agreements/ Programs for Human Resources Devel.	110	
		Management & Admin. Food P. & Insp. Research	6,593	10,895
CDC		Research	600	
Can. Livestock Feed Board		Research	2	
		Research	1,030	
CRTC		Research	40	
NMC		Museum of Man School Visit Pgm.	142	
		Museum of Natural Sciences School Visits Pgm.	139	
		Museum of Science & Tech. School Visits Pgm.	79	
		National Gallery School Visits Pgm.	112	
		Training Assistance Pgm. Fellowships	20	
		Training Assistance Pgm. Internships	125	
		CCI Internships	46	
		CCI Mobile Labs/Internships	120	
		Research	1,719	
SSHRC		Research	50,897	
CCAC		Research	458	
			247	
		Research	241	
CEIC		Research	160	
EMR		Research	9,492	
AECB		Research	10,583	

DEPT.	PN	TITLE	1984/85 RESOURCES (\$000s)	
			OPERATING	CAPITAL
EA		Education of Dependent Students	4,509	
		Foreign Service Personnel		
		Promotion de la Francophonie	18	
		Research	2,515	
CIDA		Bilateral Pgms. - Trainees in Canada	4,937	
		Bourse de l'ACDI aux Canadiens	450	
		Commonwealth Scholars Fellows	3,950	
		Educational Institutions Pgm.	11,870	
		Mgmt Development - Mgmt for Change	1,130	
		Non-Govt'l Org. (NGO) & Voluntary	1,654	
		Agricultural Development (VADA)		
		Education Allowances	456	
		Research	3,976	
Fin		Charitable Donations Deduction		
		Education Deduction		??
		Refund of Sales Tax - Bldg. Mat.		
		Registered Education Savings Plans		
		Sales Tax Exemptions - School Purchases		
		Exemption - \$500 Scholarships		
		Tuition Fees Deduction		
		Tax Expenditures		
		EPF Tax Point Transfers	2,289,979	
F&O		Research	2,914	
HWC		Athlete Assistance Pgm.	375	
		Dental Therapist Pgm.	652	
		Outpost & Community Health -		
		Nursing Diploma Pgm.	299	
		Research	17,854	
MRC		Research	153,979	
DIAND		Indian & Inuit Affairs Education &	4,964	
		Social Development Activity Management		
		Band Operated Schools	67,414	
		Federal	67,577	
		Provincial	191,629	
		University Professionals	44,254	
		Research	1,417	

DEPT.	PN	TITLE	1984/85 RESOURCES (\$000s)	
			OPERATING	CAPITAL
Jus		Civil Law/Common Law - Exchange Pgm.	341	
		Pgm. to Encourage Native People to Enter the Legal Profession	209	
		Pgmme. de Perfectionnement - Rédaction Législative	135	
		Research	929	
LRC		Research	37	
		Quality of Working Life Pgm.	85	
		Research	681	
ND		Canadian Military Colleges	94,254	2,481
		Dependents Education Pgm.	65,234	1,150
		Post Graduate Training Pgm.	9,000	
		Subsidized Univ. Educ. Pgm.	13,790	
		Research	6,210	
PCO		Research	65	
ECC		Research	55	
PWC		Land Management & Development Course/ Land Management & Development Activity	74	
		Munic. Grants Pgm./Grants - Municipalities & Taxing Authorities	129,803	
		Research	944	
NCC		Research	34	
RIE		Canada/Sask. Northlands Ag't.	156	
		Indian Prof'l Development Pgm.	8,229	
		Research	7,340	
NRC		Research	33,446	
ScC		Research	40	
NSERC		Research	283,711	
SS		Canadian Studies	3,374	
		Citizenship & Language Training - Adult Immigrants	7,888	
		Multicultural Education (Initiatives) - Subactivity	1,700	

DEPT.	PN	TITLE	1984/85 RESOURCES (\$000s)	
			OPERATING	CAPITAL
		Disabled Persons' Participation Program	10	
		Women's Studies Endowment - Assistance Pgm.	500	
		Canada Student Loans Program -	213,593	
		Centres of Specialization Pgm.	10,416	
		Established Programs Financing	2,169,539	
		Official Languages Education Activity	199,166	3,804
SGC		Demonstration Program - Support of Criminal Justice R&D	79	
		Research	2,908	
RCMP		Law Enforcement Program	10	
CSC		Education & Training Program	16,682	444
SSC		Research	1,120	
SC		Education Statistics	2,898	
TC		Pilot Air Traffic Controller Co-op Education Pgm. - Georgian College	232	
		Pilot Air Traffic Controller Co-op Education Pgm. - Cegep St. Jean	836	
		Research	3,708	
CTC		Research	56	
VAC		Children of War Dead	1,115	
CPC		Educational Assistance - Children (age 17-25) of Veterans	3,921	

LIST OF STUDY TEAM MEMBERS

Team Leader

Mr. Benson A. Wilson
Chairman
Ontario Manpower Commission
Toronto, Ontario

Deputy Team Leader

Mr. Fred Schindeler
Senior Advisor
Temporary Assignment Pool
Treasury Board
Ottawa, Ontario

Non-Federal Sector Members

Mr. Thomas C. Burnett
Manager
Process Sales
INCO Limited
Toronto, Ontario

Mr. Sigurd Jorstad
Jorstad & Associates Ltd.
Edmonton, Alberta

Mr. George D. Gray
International Representative
(Retired)
Atlantic Provinces & Nfld.
International Brotherhood of
Electrical Workers
St. John's, Newfoundland
(Head Office - Willowdale, Ont.)

Mr. Guy Reeves
Assistant to President
- Government Liaison
University of Québec
Sainte-Foy, Québec

Father Roger Guindon
Rector (Retired)
University of Ottawa

Federal Government Members

Mr. Kerry Johnston
Director General
Secretary of State
Ottawa, Ontario

Mr. Iain McKellar
Director
Planning and Evaluation
Division
Social Sciences and
Humanities Research Council
Ottawa, Ontario

Ms. Nancy Kenyon
Senior Analyst
Social Policy Division
Department of Finance
Ottawa, Ontario

Mr. Peter Pint
Senior Policy Analyst
Policy and Strategy Branch
Ministry of State for
Science and Technology
Ottawa, Ontario

Professional Support Staff

Ms. Betty Ann Van Westen
Administrative Assistant
Office of Industrial
Innovation
Department of Regional
Industrial Expansion
Ottawa, Ontario

Ms. Marielle Godbout
Program Analyst
Program Branch
Treasury Board Secretariat
Ottawa, Ontario

Ms. Lise Lavoie
Policy Analyst
Corporate Policy and
Public Affairs Branch
Secretary of State
Hull, Quebec

Mr. Thomas Wudwud (Part-time)
Research Assistant
Policy and Strategy Branch
Ministry of State for
Science and Technology
Ottawa, Ontario

Mr. Ralph D. Mitchener (Part-time)
Education Support
Programs Branch
Secretary of State
Hull, Quebec

INTRODUCTION

In this final report, the study team on Education and Research records its findings and outlines some major options for government action concerning 60 programs costing some \$6.6 billion and employing approximately 5,200 person-years of employee time.

SCOPE OF WORK

During the course of three intensive months of work, the study team contacted program managers and senior officials in the departments and agencies responsible for the operation of the programs, and visited each of the provinces and territories for meetings with senior education, research and finance officials. It was well understood that these meetings in no way replaced the formal consultations between governments which should occur before final decisions are made on matters relating to both orders of government. In this way, views and perspectives of officials from both orders of government were obtained. Beyond this, members of the study team met with national representative groups whose clienteles were significantly affected by the programs under study. These groups included the Association of Canadian Community Colleges, the Association of Universities and Colleges of Canada, the Canadian Association of University Teachers, the Canadian Federation of Students, the Assembly of First Nations, the Canadian Institute for Advanced Research, the Social Sciences Federation of Canada, and the Canadian Federation for the Humanities. The study team consulted knowledgeable people and received letters from interested university faculty members, administrators and members of boards.

TERMS OF REFERENCE

It should be pointed out that the study team was not mandated to review all aspects of education and research funded by the federal government. The terms of reference of the study team refer to "federal government programs which offer or support formal education and research and development taking place in, or in association with, educational institutions". Specifically excluded were "federal support programs for vocational training". In addition, the research programs of departments conducted "in-house" or contracted-out to the private sector were not included. While we recognize the inter-relationship between

training programs and the operation of community colleges, training was dealt with by another study team and was therefore excluded from our mandate. In the case of departmental research programs, the study team found that there are important inter-relationships between research support to universities and these programs. Comments and a proposal concerning this are included later in the report.

PROGRAM GROUPING

While undertaking the assessment of specific programs, the study team grouped them into seven general categories and one miscellaneous category:

- a. Support for post-secondary education through Established Programs Financing (\$4,524 million in one program);
- b. Support for university research (\$631 million and 27 programs);
- c. Support for Native education (\$570 million and six programs);
- d. Direct education services (\$116 million and five programs);
- e. Federal involvement in school programs (\$225 million and four programs);
- f. Student aid (\$278 million and two programs);
- g. International programs (\$42 million and eight programs); and
- h. Miscellaneous (\$213 million and five programs).

GENERAL CONCLUSIONS

Inter-relationship of Post-Secondary Education Financing and Research

Without downplaying the importance of the cost and the program issues that are involved in the last six areas, the money involved, the joint nature of the programs and the issues that must be addressed in the first two areas are much larger and more fundamental. Accordingly, it is appropriate to comment explicitly on these two areas before coming to specific consideration of options.

Firstly, we note the strong belief that, if Canada is to maintain its place in the competitive world of the future and be capable of playing a significant role in

international development activities, there is a need to maintain a strong and balanced system of post-secondary education and research enterprises.

Secondly, we must note the close connection between support for post-secondary education (more particularly the university component) and support for university research. In industrial language, advanced education and research are joint products carrying with them the attendant cost allocation problems. For this reason, decisions made in the area of core support for post-secondary education cannot be completely separated from decisions made in the area of research support.

Thirdly, in spite of the concern that has been expressed about the total amount of money devoted to post-secondary education, we have found no objective measures which demonstrate that the system is over-funded. No recent report, (e.g. Macdonald Commission, Johnson Report, Wright Report, Bovey Report) suggests that there is a case to be made for reduced funding for post-secondary education. Re-direction of funding, targeting, rebalancing between research and core funding of post-secondary education are all suggested, but there is no suggestion for overall reduction. On the other hand, in spite of the heartfelt concern of the academic community, there are no objective measures to prove that the system has been significantly damaged by recent stringency in funding.

Finally, while there has never been any serious objection to federal government involvement in research, the same cannot be said with respect to education. Federal support for post-secondary education has been a source of federal-provincial tension from the very beginning. The current arrangements rest on the assumption that fiscal capacity and constitutional responsibilities have not been evenly matched and the provinces have insisted that the federal role should be limited to funding. Nonetheless, much of the federally-supported research takes place in universities.

Arising from this, the study team believes that the decisions taken in support of post-secondary education and research are linked and that this linkage must be recognized.

Contracting-out and Intramural Research

As is noted in the section dealing with research, the \$631 million transferred to the universities by the Granting Councils and through departmental grants and contributions is a small fraction of total federal research and development expenditure. The study team did not fully investigate either the intramural departmental programs or the contracting-out of research activities undertaken by departments because these fell outside of our mandate. What work we have been able to do has led us to the conclusion that the proposals of the Study Team on Government Procurement with respect to contracting-out policy for science and technology should be followed and that the various reviews of federal research programs and laboratories recommended in the Wright Report should be undertaken.

Equity of Treatment

Two principles were endorsed by the study team and reflected in its assessment of programs:

- a. Access to federal programs should be equal for all Canadians; and
- b. Special programs designed to ensure equal accessibility, that is, entry, should be based on individual requirements for assistance and not be provided on the basis of membership in a specific group where some, but not all, may be in need of such assistance.

FEDERAL FINANCIAL SUPPORT FOR POST-SECONDARY INSTITUTIONS

Options for the federal government range from establishing an explicit role for itself in the support of post-secondary institutions (which has never yet been done) to withdrawing altogether from the field. The Constitution Act of 1867 assigned to provinces the responsibility for education in and for the provinces. However, the sustained participation of the federal government in the support of post-secondary students and institutions since the Second World War, and the growing emphasis on the national aspects of research and vocationally-oriented training, have given the federal government a substantial de facto presence in post-secondary education. Its role has not been described comprehensively or consistently in a way which would attract the general support of provincial government spokespersons and interested sectors of the public.

The study team considers it absolutely essential that, in attempting to follow any of the options outlined here, the federal government consult fully and cooperatively with the provincial governments both in choosing the option and in implementing it. There has been much federal-provincial disagreement over educational financing matters, particularly over the present vehicle for post-secondary financial contributions. These disagreements should be left in the past and a more open and collaborative approach should be taken. At the same time, we recognize the enormous difficulties in the way of securing federal-provincial agreement in this area.

The principal vehicle of federal support for post-secondary institutions at present is the transfer to provincial governments authorized by the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977 (or the Fiscal Arrangements Act, also known as the EPF arrangement). Continuation of the present arrangement is one of the options for the federal government. However, the EPF arrangement has very serious disadvantages. Three other options are therefore recommended to the Task Force for consideration by the government.

Option One: Continue the present arrangement, which (in part) provides unconditional block transfers intended to assist the provinces to provide post-secondary education.

When the large-scale federal-provincial arrangement for the core funding of post-secondary institutions was initiated in the 60s, its overall justification in terms of federal-provincial relations was that federal and provincial fiscal resources and constitutional responsibilities were mismatched. Provinces had fiscal resources inadequate to meet their constitutional responsibilities, while the federal government's fiscal resources exceeded its needs. In this situation, alternative solutions might have been to alter the constitutional allocation of responsibilities, or to alter the constitutional allocation of resources. Since constitutional revision was not feasible at the time, the pragmatic solution was for the federal government to transfer financial resources annually to the provinces for the purpose of assisting them with the support of post-secondary institutions. In the same period, a number of major federal-provincial agreements on social programs were concluded, in addition to the financing arrangements for post-secondary education.

The section on EPF outlines the history of the arrangement and explores its defects as well as ways of changing it. Continuation of the arrangement does not necessarily mean maintaining the formula exactly as it now exists.

Option Two: Continue financial support to provinces for post-secondary institutions but establish a totally new basis for it by offering conditional transfers tied to provinces meeting some specified standards.

This option would, in the view of the study team, constitute an attempt to establish an explicit federal role, and could be expected to meet strong provincial objection. However, if federal financial support is considered necessary to ensure adequate institutional funding, or to ensure that national standards in the post-secondary educational system are maintained, the effort to secure provincial agreement will have to be made.

There are different models for conditional arrangements which could be emulated, such as the Canada Health Act model (in which national standards are contained in a statute, and provinces are financially penalized for failure to meet them), and the Official Languages in Education model (in which a general federal-provincial agreement on objectives and amounts is implemented through a set of bilateral agreements on specifics). The conditions or national

standards or objectives which ought to be expressed and possible purposes for which the federal government might provide financial support should include the following:

- a. to ensure that all provinces and territories develop and maintain strong post-secondary educational institutions in order to
 - raise the educational profile of Canadians;
 - provide an adequate supply of highly qualified personnel for the public, academic and private sectors; and
 - permit and facilitate inter-provincial movement of students;
- b. to ensure that all Canadians who have the capacity and the will to learn will not be deprived of post-secondary education by their inability to pay for it;
- c. to promote the development of excellence in research to an international level;
- d. to promote the development of an authentic Canadian identity which includes cultural and regional diversities; and
- e. to promote the two Canadian official languages.

Option Three: To provide funds which would flow to institutions by way of students.

Apart from support for post-secondary students, intended to help with their living costs, there is the matter of support to students which flows to the institutions by way of tuition fees. At present, tuition fees do not provide on average a high proportion of institutional operating income. (By province, the range is considerable, from 20 per cent in Ontario in 1983/84 to 9 per cent in Quebec. The Canadian average is 15 per cent). Provincial governments exercise a strong influence and, in some instances, an actual control on fees charged by institutions. If the federal government undertook to pay part of the student fees by some such means as a "voucher" system (as in the proposal in the Macdonald Commission report), it might perhaps, through federal-provincial agreement, be arranged that tuition fees be raised so as to flow more money through to the institutions. The federal aid to students would then be increased to cover the students' additional expense. The rationale for using this mechanism would be, in part, that students should have a

greater market power with respect to institutions, making the institutions more responsive to them. We should note, however, that this type of plan is strongly opposed by students, institutions and provincial governments.

Option Four: To concede that the federal government has no role in post-secondary education, and to withdraw in a phased way from financial support of it.

There is justification for a withdrawal in that the constitution does not explicitly allocate any responsibility to the federal government; the expansive circumstances which brought the federal government into the financing of post-secondary education in the fifties and early sixties no longer exist; and the federal involvement has only created contention all along. Clearly, a suitable phase-out period would have to be negotiated with the provinces and, also, the provincial starting point would be that the tax point transfer is a 'fait accompli' and is not part of any negotiations.

Withdrawing from a role in the financing of post-secondary institutions does not carry the implication or consequence of withdrawing from the funding of university research.

ESTABLISHED PROGRAMS FINANCING

DESCRIPTION

The Established Programs Financing (EPF) arrangement provides for a block transfer of federal funds to the provinces with the intention of supporting their insured health services and post-secondary education systems. The transfer is partly in cash and partly in tax points. The transfer of tax points represents the value of income taxes for which the federal government has, at various times in the past, reduced its rate by prior agreement, so that provinces might increase their tax rates in order to finance these services without increasing the total burden on the taxpayer. Initially, the cash part of the transfer was attributed to health and to post-secondary education in the same proportions in which federal transfers had been made in 1975/76 under the predecessor arrangements, namely 67.9 per cent for health and 32.1 per cent for post-secondary education. The calculations of these two elements (that is, health and post-secondary education) are now done separately. The division between the two proportions has shifted to approximately 71/29 as a consequence of the six-and-five amendment resulting from the restraint program of 1984.

The transfers are equal per capita in all provinces and territories, increase annually with the growth of the economy and the provincial population, and carry no legal obligation as to how the money shall be spent. In 1985/86, the transfer attributed to post-secondary education consists of a cash portion of \$2.366 billion and a tax transfer of \$2.158 billion, for a total entitlement of \$4.524 billion.

Calculation of the provincial entitlements is done by escalating the 1975/76 per capita payments (under the predecessor programs) by an escalator which reflects the three-year moving average of annual per capita growth in the economy, and applying the derived per capita figure to each province's population. From this total "entitlement", the equalized value of the tax point transfer is deducted, and the residual amount is paid in cash. In any year, the actual cash payments depart from the calculated entitlements by reason of adjustments for prior years and for over or underestimates.

OBJECTIVES

According to the Fiscal Arrangements Act, the transfer is "for the purposes of financing the programs designated" (which are "the post-secondary education financing program" and "the insured health services program in respect of which criteria and conditions are established under the Canada Health Act") "in a manner that will increase provincial fiscal flexibility", and "of maintaining national standards, where appropriate, in the operation of those programs".

AUTHORITY

Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977.

HISTORY

The arrangements for financing post-secondary education that preceded the EPF arrangement began in 1945 as aid to veterans, when veterans suddenly and briefly accounted for half of university enrolments. In 1951, under the authorization of the Appropriations Act, the federal government provided general support for the operating expenditures of universities by making direct grants to them. After the first year, and in response to jurisdictional objections, the federal grants were paid to the Organization of Canadian Universities (now the Association of Universities and Colleges of Canada or AUCC), and distributed by it to universities in accordance with their enrolments. This arrangement lasted from 1957 to 1967. During the same period, the federal government through other agencies was also making substantial capital grants to universities.

From 1952/53 until 1959/60, the Government of Quebec prohibited Quebec universities from accepting the federal grants, even though they were distributed through the universities' association. In 1960/61, a modified arrangement allowed Quebec to opt for an abatement of a point of federal corporation income tax in place of the cash transfers intended for universities, and it elected to do so.

In 1967, a new cost-sharing approach to post-secondary education was introduced. The new five-year arrangement was authorized by the Federal-Provincial Fiscal Arrangements

Act, 1967. Federal cash and tax points, with associated equalization, were transferred to the provinces to equal 50 per cent of eligible operating expenditures by post-secondary educational institutions in each province. An alternative payment of \$15 per capita of provincial population (escalated annually in accordance with the national rate of increase in eligible expenditure) was made to those provinces (Newfoundland, P.E.I. and New Brunswick) where the alternative payment provided a larger amount. It should be noted that, like other cost-sharing arrangements, this one required the auditing of expenditures. Unlike most, however, the payments made to the provinces were not based on the costs incurred by the provinces, but rather on the costs incurred by the post-secondary educational institutions. Payments were not equal per capita in all provinces, and did not constitute 50 per cent of provincial expenditures on post-secondary education; and, because of the alternative payments in three provinces, the payments were not a uniform 50 per cent of institutional operating costs.

In 1972, the personal income tax points were increased because of tax reform, to maintain their value, and the arrangement was extended for two years. Because of federal concern over its own rapidly increasing expenditure levels, a cap of 15 per cent was placed on the annual increase in the total federal contribution for post-secondary education. The arrangement was extended again until March, 1977, maintaining the same annual 15 per cent cap on total expenditure increase.

At a federal-provincial conference in June 1976, the federal government announced its proposal for the block transfer of tax points and cash which came into effect as the 'EPF arrangement' in 1977. This arrangement formed one component of a package of revised federal-provincial fiscal arrangements. Specifically, it replaced the earlier cost-sharing arrangements for three jointly-financed programs which by 1977 were considered to be "established programs": post-secondary education and the two insured health services, hospital care and medical care. Another payment in consideration of provincial programs in "Extended Health Care" was also brought into the Act. Thus, the transfer payments for health and for post-secondary education were brought together in one Act, and within one formula for their calculation, where they had previously been quite separate. The terms and conditions of the health programs continued to be governed by two other federal

statutes, the Hospital Insurance and Diagnostic Services Act and the Medical Care Act. No conditions governing post-secondary education expenditures had ever been expressed in legislation before this time, and none have been since.

It is customary (though not legislatively required) to enter into fiscal arrangements for five-year periods. At the end of the conventional five-year period, in 1982, the EPF arrangement was altered by two changes in its governing legislation (and the name of the act was changed). One change made the transfers equal per capita in all provinces and territories. Another change put an end to the compensation payments which had been made to provinces since 1977 because of the termination of a 1972-1977 Revenue Guarantee. (See Annex A for a description of this arrangement).

In 1984, another amendment to the Act directly affected the post-secondary financing component of EPF. Instead of escalating in 1983/84 and 1984/85 by the three-year average increase in GNP, as previously, the per capita transfers to provinces escalated by a fixed 6 and 5 per cent respectively. In order to establish the separate escalator for the post-secondary component, the calculation of this component was clearly separated from the calculation of the health component of the tax and cash transfers. Without this amendment, the per capita transfers would have escalated by approximately 9 and then 8 per cent. Consequently, about \$677 million less will have been paid to provinces for post-secondary education from 1983/84 through 1985/86 than would have been the case without the amendment.

Another 1984 change to the Act imposed on the Secretary of State a new requirement to report to Parliament annually, beginning in 1986, on various specified matters relating to post-secondary education. It had been a matter of some concern to the government and, eventually, to Parliament, that the Secretary of State had been unable throughout the life of the EPF arrangement to enter into any meaningful discussion with provinces on the federal responsibilities in post-secondary education. Such discussion had been clearly intended by the federal government when it had first proposed the EPF funding arrangement in 1976, and had been incorporated into the legislation in 1977 by requiring the Secretary of State to consult with the provincial governments on post-secondary education programs.

Although the EPF provisions of the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977, have no expiry date, it is nevertheless likely that this would be a subject in federal-provincial discussions on the future of EPF, within the context of the general fiscal arrangements.

STRUCTURE

The Act authorizing the EPF arrangements is the responsibility of the Minister of Finance, and the Department of Finance calculates the entitlements and payments for the province. For the cash portion of the transfer, the post-secondary education cheques are sent out by the Secretary of State and the health cheques by the Minister of National Health and Welfare. The Secretary of State is responsible for policy discussions with provincial ministers on post-secondary matters, and for policy recommendations within the federal government.

RELATED PROGRAMS

The health component of the EPF arrangement is integrally related to the post-secondary education component. Because the Act contains no obligation to spend the EPF transfers on particular programs or objects, and is not a cost-sharing instrument, it is apparent that as far as the Act is concerned, provinces receiving the transfers are entitled to use the "flexibility" which was an important feature of the original 1977 arrangement, and distribute the funds between health and post-secondary education as they see fit. In fact, between 1975/76 and 1982/83, all provinces reduced to some extent the relative importance of post-secondary education in their spending on these two sectors combined. All provinces, however, are continuing to spend much more on the combined sectors than the total EPF transfers they receive.

Other related programs of the federal government are the student aid programs (the Canada Student Loans Plan and special programs for special groups); the selective tax measures, or tax expenditures, which give preferential treatment to taxpayers engaged in post-secondary studies; and granting programs which are concentrated in the three granting councils.

ASSESSMENT

Notwithstanding the general recognition that the EPF arrangement was a great improvement over the preceding arrangement, and was of considerable value to the growth of post-secondary education in Canada, the study team concluded that there are flaws in the EPF arrangement as an instrument for federal support of post-secondary education. Firstly, the objectives are not specified clearly, and the stated objectives apply to both health and post-secondary education, which creates ambiguity. There is also the possibility of conflict between the objective of increasing "provincial fiscal flexibility" and the objective of "maintaining national standards". National standards do apply to the insured health services, because the criteria set out in the Canada Health Act must be fulfilled as a condition of the fiscal transfer. In theory, the federal government could have legislated standards with respect to the post-secondary education transfer also. Standards might, for example, have specified a floor for provincial financial support for post-secondary education, or might have set out some inter-provincial accessibility criterion, as a condition of eligibility for the fiscal transfers. However, the federal government did not establish any national standards with respect to transfers for post-secondary education. Groups on all sides of the argument have tried to fill this apparent gap by imputing standards or intent which are not expressed anywhere in the legislation. There is continuing disagreement over the meaning of the Act, and the commitments of the governments. This is a serious disadvantage.

A second fault in the EPF arrangement, in the view of the study team, is that the arrangement not only permits, it actually encourages each order of government (federal and provincial) to blame the other for any apparent deficiency in the level of funding of post-secondary education. When a provincial government is criticized for inadequate funding, it responds that the federal government reduced money for post-secondary education through its 1982 and 1984 amendments to the Fiscal Arrangements Act. When the federal government is criticized for reducing the funds, it replies that the provinces are not spending them on education anyway. This is not a satisfactory situation in either the short or the long run.

Although the tax point transfers are clearly part of the EPF arrangements, provincial governments do not regard these tax points as a federal financial contribution. This creates another point of difference and confusion in any discussion bearing on the amounts of financial support provided by the federal and provincial governments respectively.

In 1981/1982 and 1982/1983, the federal government evidently began to question whether the EPF formula was still an appropriate kind of fiscal transfer. This formula maintained and indeed increased the large cash outflow to the provinces when the federal government was in an increasingly uncomfortable fiscal situation. The lagged escalator in EPF ensured that total entitlements continued to grow faster than GNP was then growing and, moreover, the failure of tax yields to rise faster than population meant that the cash payments (the residual part of the formula) grew even more rapidly. In 1981/1982, and the two following years, the cash component of the post-secondary education transfer was growing at a rate of 12 per cent or more annually.

In conclusion, the objectives of the EPF transfer are not clear and are a source of continuing controversy as to interpretation. It is questionable whether the arrangement is still appropriate. The problems in the EPF arrangement are sufficiently severe that serious consideration should, in the view of the study team, be given to other options. We note that provincial governments would object to any new option, because no other arrangement could likely offer them the combination of revenues and unconditionality with respect to post-secondary education that the present EPF arrangement provides. Nevertheless, in the view of the study team, it is of the greatest importance that the government develop a new direction in consultation with provinces.

OPTIONS

The major choice is whether to maintain the present arrangement or to move to a new one - that is, terminate the present form of the EPF arrangement. The first option presented below is maintenance of the present arrangement, and then follow options for changing or terminating it.

The study team recommends to the Task Force that the government consider the following:

1. Maintain the present EPF arrangement.

This option would ameliorate the extremely difficult choices which the government would have to make if it decided to terminate EPF. It also avoids the strenuous and bitter opposition that can be expected to come from at least some provinces if EPF is terminated. On the other hand, this option does nothing to relieve the serious problems identified in the assessment. Only buoyant government revenues could relieve these problems. Since this situation is not expected to recur for some time, the frustrations occasioned by EPF could be expected to continue for the next five or 10 years.

The study team recognizes that, if the EPF arrangement continues and government revenues do not improve, the federal government may alter the escalators for post-secondary transfers again. This could create as much federal-provincial disagreement as some other options.

If the EPF arrangement is to be maintained, the frictions created by it might be somewhat reduced by amending the Act to establish an individual ratio, for each province, of its post-secondary education/health services spending split. This action would preserve the notion of a health portion for purposes of the Canada Health Act, but recognize that each province makes its own priority choices between post-secondary education and health. Such recognition would not make the academic community happy, but would make it more apparent that the provincial governments are living up to a spending commitment. The interpretation given to the split at present is often that they are not. A change of this sort would not likely be acceptable to all provinces, however. Moreover, such a move would put an end to an important feature of the present plan, namely, that the transfers are equal, per capita, in all provinces.

The following options suggest ways of terminating the EPF arrangement in its present form. Termination of the EPF arrangement is not a simple matter, since it requires:

- a. Government policy decisions on block funding and fiscal transfers as well as on post-secondary education financing; and

- b. Unbundling the health and post-secondary education parts of the EPF arrangement. This implies separating the two transfers, both cash and tax. It is not possible to do this painlessly, but some modes of separation are more painful - that is, radical - than others. The study team has no mandate to deal with health services, and has assumed that terminating the post-secondary arrangement should disrupt the existing arrangement for insured health services as little as possible.

2. Leave the health transfer as is, as much as possible, through changing the Fiscal Arrangements Act's provisions for post-secondary education or removing them to another act and attaching conditions to the transfer.

This option assumes that the federal government has objectives for post-secondary education which can be stated as general conditions of a transfer, in somewhat the same way as in the Canada Health Act with respect to insured health services.

The objective in changing the post-secondary arrangement would be to set out federal purposes and the conditions or criteria governing the transfers. The occasion could also be used to modify the formula for the transfers or adopt a new one.

In the view of the study team, there are several possible alternative procedures which could be followed, with differing implications for legislation and policy, and differing reactions to be expected from the provinces and others. One possibility is to amend the Fiscal Arrangements Act by including in it a statement of the federal purposes and conditions. The legislative change would be very simple. A second possibility is to prepare a new act which sets out the federal purposes and conditions but leaves the financial substance untouched in the Fiscal Arrangements Act. This would exactly parallel the relation between the Fiscal Arrangements Act and the Canada Health Act. Two statutes would be involved, but the legislative process would be simple.

A third possible procedure would be to pass a new act setting out the purposes and conditions for post-secondary transfers, and transfer to this act all the provisions of the Fiscal Arrangements Act with respect to post-secondary

education. Thus, the Fiscal Arrangements Act would no longer have any connection with the post-secondary transfers. This process would be relatively simple legislatively but, by making a real break between the health and post-secondary transfers (with a greater possibility of their divergence in future), would raise a possible concern that these transfers would no longer be equal per capita in all provinces.

In all of these procedures, it is proposed that the government consider moving to create an individual health/post-secondary split for each province, reflecting its own priorities in spending, as suggested above. While all of the procedures are legislatively fairly uncomplicated, they are radical in policy terms. Any of them might be met by provincial challenge to the power of the federal government to legislate in respect of post-secondary education.

A fourth possible procedure, more radical yet and also somewhat more complex legislatively, would be to set up a new act, remove all post-secondary substance from the Fiscal Arrangements Act and incorporate into the new act some totally new formula basis for determining the transfers to the provinces. The advantage of setting up a new act with provisions for financial transfer is that it would enable the federal government henceforth to consider and establish its role in post-secondary education financing without having to review its health role at the same time. This would be a major advantage, because the combination of the two transfers in one Act has had, and still has, the effect of paralyzing federal decision-making with respect to post-secondary education. However, a major disadvantage is that this option would be the most radical change, and could meet much opposition from the provincial governments and possibly from other sectors (depending on what the federal intentions towards post-secondary education were). One provincial objection would be that such a change would eliminate the flexibility of the 1977 arrangement.

In examining the question of how the amounts transferred to the provinces might be determined if the present formula is discontinued, the study team has not considered as a realistic option a return to traditional cost-sharing. The cost-sharing arrangements in effect before 1977 had been unsatisfactory to both federal and provincial governments, and a new arrangement was sought for good reason. Briefly, an open-ended transfer was no

longer acceptable to the federal government (hence the overall cap of 15 per cent); the auditing and prior program approvals which are part of cost-sharing were onerous to all parties; a satisfactory definition of "post-secondary" applicable to all provinces has never been found; and, the provinces found the old arrangement hampered their program flexibility.

3. Terminate the transfer for post-secondary education.

Very briefly, there is justification for a withdrawal by the federal government from core support of post-secondary institutions in that the constitution does not explicitly allocate any responsibility to the federal government; the expansive circumstances which brought the federal government into the financing of post-secondary education in the fifties and early sixties no longer exist; and, federal involvement has only created contention all along.

Termination of the federal transfer for post-secondary education does not imply termination of the federal support for research. However, it is clear that this option would attract enormous opposition from provincial governments, the university community, and possibly other groups. A suitable phase-out period would have to be negotiated with the provinces. One of the important initial elements in negotiation would be the fate of the tax points - whether to cede them to provinces as a 'fait accompli', which provinces consider them to be, or whether the federal government would try in effect to recover them by raising tax rates.

From the legislative viewpoint, there are two alternatives possible for terminating the arrangement. The references to post-secondary education could simply be removed from the Fiscal Arrangements Act. This amendment would mean, in effect, designating the whole of the present transfer for both purposes as a transfer for insured health services and extended health care only, and does not make much sense. Alternatively, the Fiscal Arrangements Act could be amended to remove these references and also the portion of the transfers related to them; this portion would then have to be determined through policy choice and intergovernmental negotiation, as in the case of the second option.

ORIGIN AND NATURE OF THE 1972 PROVINCIAL PERSONAL AND CORPORATE INCOME TAX REVENUE GUARANTEE

As part of the tax reform which was introduced in 1972, it was necessary to determine what the new tax system would yield compared to the old tax system. In particular, the federal government had to estimate the tax rates that provinces which are party to a tax collection agreement should apply to the new definitions of basic federal tax and corporate taxable income in order to derive the same yields as their old tax systems would have produced. Such estimates were made but their accuracy was uncertain. The federal government therefore agreed to guarantee that the yield from the provincial and corporate income taxes at the suggested rates would be at least equal to what provinces would have received if the 1971 tax system and 1971 provincial tax rates had been continued. The federal government undertook to provide this guarantee for five years. At the end of five years, it was expected that final information for 1972, 1973 and 1974 would be available and provinces could then set rates at whatever levels they chose on the basis of the three years of experience with the new system. The federal government not only guaranteed the yields following the major reform of 1972, but also for subsequent changes to the federal tax base, except for indexing of the personal income tax. The following amounts were transferred to the provinces under this program:

Year*	\$ millions
72/73	91
73/74	457
74/75	487
75/76	714
76/77	966
TOTAL	2,715

* Year of entitlement

In the negotiations leading to the fiscal arrangements for the 1977-82 period, the federal government proposed to eliminate the revenue guarantee program on the grounds that provinces had had sufficient time to adjust to the new tax system. This gave rise to considerable debate in conjunction with the debate over the development of a block funding arrangement to replace the shared-cost arrangements

in respect of health programs and post-secondary education. The provincial governments wanted the equivalent of four points of the personal income tax as compensation for termination of the 1972 revenue guarantee. The resolution of the debate was that the equivalent of two points of personal income tax were included in the EPF arrangements (one personal income tax point and the equivalent in cash). This compensation was rolled into the EPF arrangements and was not distinguished from the transfers in respect of the old shared-cost programs. When it was decided to split the cash transfer between post-secondary education and the health programs, the compensation for termination of the 1972 revenue guarantee was, in effect, split in the same ratio and ascribed to post-secondary education and health.

It was stated at that time that the additional compensation included in the EPF arrangements was in respect of all other outstanding issues which provinces had raised and also for the provinces' agreeing to include the hospital insurance program in the EPF arrangements, even though the hospital insurance agreements would not expire until 1980. The federal government had given notice of its intention to withdraw from the agreements in 1975.

In 1980, the federal government announced that it intended to reduce transfers to provinces in the Social Development envelope. In the November 1981 budget, the federal government announced that it was going to end the compensation for termination of the 1972 revenue guarantee included in EPF. The federal government argued that this element of the EPF arrangements was not in respect of post-secondary education or health programs and that the provinces had then had 10 years to adjust to the new tax bases following the 1972 tax reform.

The elements of the EPF transfer in respect of the compensation for termination of the 1972 revenue guarantee were deleted beginning in 1982/83. The amounts which had been transferred during the five-year period were:

Year*	\$ millions
77/78	451
78/79	513
79/80	581
80/81	657
81/82	740

* Year of entitlement

RESEARCH

OVERVIEW

A positive relationship exists between research and development (R&D) activities and innovation, which leads to social and economic benefits. It is this relationship which prompts government and business alike to invest in research.

The federal government supports research for a variety of purposes. The major aims of the government treated in this paper are: a. for its own use; b. to encourage the development of research capacity and manpower through Canadian universities; c. to promote greater research and development efforts on the part of Canadian business enterprises; and d. to facilitate the development and adoption of new technologies.

The major activities of the federal government in research and development, and development of highly-qualified personnel (HQP), can be divided into the following categories:

- a. intramural or in-house activities; and
- b. extramural or outside activities conducted at universities, business enterprises or elsewhere.

The extramural research is funded through contracts, grants, contributions and fellowships. In addition, the federal government provides tax incentives for industrial research.

The three granting councils, the Natural Sciences and Engineering Research Council (NSERC), the Medical Research Council (MRC) and the Social Sciences and Humanities Research Council (SSHRC), are the major federal source of funds to universities and for highly-qualified personnel.

BACKGROUND

In 1984/85, Canada's gross expenditure on research and development (GERD) in the natural and social sciences was about \$5.8 billion. GERD was 1.3 per cent of Gross Domestic Product (GDP), well below the target of 1.5 per cent set by the previous government but well above the level of 0.96 per cent reached in 1976.

In comparison with other OECD countries, Canada's investment in research and development activities is low. Table 1 of Appendix A, presents GERD as a percentage of GDP (adjusted for international comparisons by OECD) and industrial R&D expenditures as a percentage of Domestic Product of Industry (DPI) for 1981.

Appendix A, Table 2, shows the expenditure in 1981 by all levels of government on research in comparison with selected OECD countries.

Business enterprises perform 48 per cent of GERD, or just under \$2.9 billion; in the natural sciences only, the figure is 53 per cent. Nearly 75 per cent of the business expenditure is funded by the enterprises themselves; another 11 per cent (\$283 million) is funded by the federal government. The proportion of research and development done by the private sector but funded by government is lower in Canada than in other major OECD countries. The U.S. government spends half as much intramurally as it gives to industry. In Canada, the government spends five times more intramurally than it gives to industry.

A summary of federal Science and Technology (S&T) expenditures in 1984/85 is given in Appendix A, Table 3. Total federal expenditures in the natural and social sciences including both research and development (R&D)* and related scientific activities (RSA)* came to \$4.1 billion in 1984/85.

Canada spent less in 1981 on higher education R&D (27 per cent) than many other countries. In 1984, the federal government spent 22 per cent on higher education R&D of its total R&D expenditure.

Canada has generally lost ground in the performance of R&D in the higher education sector, as indicated in the values of compounded real growth rates in higher education R&D (e.g. 1969 to 1981: Sweden, 10.3 per cent; Japan, 6.8 per cent; Germany, 4.2 per cent; U.S., 1.2 per cent; Canada, 0.6 per cent).

* R&D is defined as creative work undertaken to increase knowledge. RSA contributes to the generation, dissemination and application of scientific and technological knowledge.

Federal science and technology expenditures are concentrated more than four to one in the natural sciences and engineering S&T (82 per cent) as compared to social sciences and humanities S&T (18 per cent).

MAJOR ACTIVITIES OF THE FEDERAL GOVERNMENT IN RESEARCH AND DEVELOPMENT

Description

Even though federal intramural R&D and support for industrial R&D does not fall directly within the terms of reference of this study team, it is necessary to address these in the context of the overall R&D effort of the federal government.

Intramural R&D

Most federal intramural research serves either the needs of the government or is intended to support the perceived or real goals of the private sector. Regulatory monitoring and testing activities fall within a broad, legitimate role for federal laboratories as does research, which has a higher risk and long term component. The Wright Report generally supports this role. The hazard is that the work carried out in the federal laboratories tends to push the marketplace, rather than being pulled by it.

Bureaucratic controls have been identified by the Wright Task Force as an important cause of inefficiency and loss of effectiveness in government laboratories.

With respect to federal employees involved in scientific activities, Appendix B, Table 1, indicates that the totals have not changed substantially since 1976/77. In the social sciences, however, the numbers have dropped substantially, principally among those engaged in R&D.

Support for University Research and Development Activities

Statistics Canada data indicate university research and development activities obtain 12 per cent of federal expenditures on S&T. Grants and contributions, research fellowships and contracts account for the \$505 million the federal government spent on university R&D in 1984/85. The universities receive an additional \$57 million for educational support, mostly in the form of graduate fellowships.

The study team data indicate that the total amount of money provided to the granting councils and federal departments and agencies to support university research was \$636.4 million.

It is not possible to directly compare the study team's data to those of Statistics Canada. The team's data also includes administrative costs, some support of related scientific activities, and some grants to individuals or organizations outside the university sector, which are excluded by Statistics Canada.

Granting Councils

The three granting councils provided \$415 million in R&D grants in 1984/85, or 82 per cent of the \$505 million federal support for university R&D. The councils are the principal federal mechanism for promotion of discipline-based research, the majority of their R&D funds going to researcher initiated proposals. A variable proportion, depending on the council, goes for research on targeted areas in the national interest.

All the councils claim they need additional resources to address their identified program requirements. There has been additional pressure on the councils to cover indirect costs of research. This has resulted from the inability of the universities to cover these costs due to a combination of financial stringency, increased research and continued high enrolments.

Departmental Grants and Contributions to Universities

Twenty-three federal departments (excluding the granting councils) awarded \$55 million to universities in 1984/85, in the form of R&D grants, contributions and research fellowships. This is equal to approximately 2 per cent of the total budgets of departments for research and development in natural and social sciences research.

These grants, contributions and fellowships may be given without consultation with the granting councils, resulting in a lack of coordination. NSERC does administer scholarships for some departments but does so in the capacity of a "post office".

Awards given by departments to universities are not necessarily subjected to the same stringent peer review as are the awards given by the granting councils.

Departmental Contracts to Universities

In addition, in 1984/85 federal departments/agencies let \$36 million worth of contracts to universities. This represents approximately 1 per cent of the combined departmental R&D budgets.

Support for Industrial R&D

Federal support of R&D in business is provided through such instruments as contracts, grants and contributions and tax incentives. The impact on universities of direct federal support of business research and of the tax incentives for R&D is limited to research eligible for favourable tax treatment which companies contract out to universities.

Contracting-out

In 1972, the federal government adopted a policy of encouraging the contracting-out of government research and development. There have been no changes or amendments to that policy since 1976. The policy statement is specific with respect to the mission of the government: "it is in the national interest to encourage the fullest possible participation of Canadian industry in meeting these needs". No specific reference is made to the university sector, however, the following paragraph also applies to contracts given to universities.

In the view of the study team, certain concerns have become apparent with respect to the implementation of the contracting-out policy:

- a general apathy appears to exist within the government towards vigorous implementation of the procurement policy;
- when budgets are reduced, contracted-out projects are the first to be affected, to protect the department's salary and other in-house costs;
- there may be a tendency to by-pass the impartial bidding process by using the "sole-source" method;

- departments possess signing authority for contracts up to a certain dollar-limit, which means they can bypass the competitive process. (The positive side of this system is that decision-making is left with the department and this procedure is more expeditious); and
- the condition that ownership of developed intellectual property should remain with the Crown is viewed negatively by university researchers and business, reducing their willingness to bid on government contracts.

Technology Transfer

The government is involved in specific programs to promote the transfer of technology within Canada and abroad. Recent studies show that Canadian firms have a longer adoption lag than average for OECD countries before getting technology into production.

There has been no major evaluation, however, of whether the federal technology transfer network is achieving what it set out to do. Until the programs have been evaluated, it is not known whether there is duplication of programs and effort.

OPTIONS

Support for University Research and Development

Granting Councils

The options which have been developed by this study team for the three granting councils are divided into the three categories: policy direction, funding levels and organization. The study team recommends to the Task Force that the government consider the following options:

Policy Direction

1. Maintain the status quo, with general policy direction being given from the federal government to the three granting councils during approval of the respective five-year plan.
2. (Preferred) Give stronger and more specific policy direction from the federal government to the

three granting councils during approval of their respective multi-year plans. This could be achieved by approving multi-year funding levels by program and subjecting them to an annual review, to be conducted by the proposed Steering Committee.

Funding Levels

No matter which option is selected, it is imperative that longer term commitments by the government to funding than the present annual approval be made.

1. Freeze the funding levels at the total 1984/85 level (i.e. funding consisting of the A-base plus incremental funds).
2. Add a cost escalator to option one (above).
3. (Preferred): Set the A-base budget of the three granting councils at 1984/85 levels, (Option One) and allow increments, subject to specific policy direction.

Organization

1. Confirm the organizational status quo (three granting councils reporting through three different ministers) with the suggestion that the coordination mechanism for the councils be strengthened by increasing membership to include representatives from the departments of Finance, Health and Welfare and the Secretary of State.
2. (Preferred): Maintain the three granting councils as separate and independent organizations reporting to one minister.
3. Merge the three councils into one, with a common head, reporting to one minister.

Departmental Grants and Contributions to Universities

It is proposed that many of the grants, contributions, scholarships and other support to universities (including chairs but excluding contracts), be administered by the appropriate granting councils. This can be undertaken in either of two ways:

1. (Preferred) Keep the financial resources under departmental control and continue budgeting as a departmental expense.
2. Transfer the budgets to the granting councils, which would receive policy direction from the concerned departments and agencies on the allocation of these funds.

The study team also recommends to the Task Force that the government consider the following:

Intramural Research and Development

Review the recommendations of the Wright Task Force related to intramural R&D and implement where feasible.

Support for University Research and Development

Granting Councils

Regardless of the organizational option adopted, the study team proposes:

- a. A Steering Committee, composed of university, federal/provincial governments and private sector representatives, be created to advise at the ministerial level on policy and other matters.
- b. Appropriate measures be implemented to ensure that the administrative services (e.g. personnel, finance, communications, computers, etc.) are shared by the three councils.
- c. Move towards re-establishing a funding balance for the councils to reflect the 1979 proportions, which were: four (NSERC), two (MRC) and one (SSHRC).
- d. All granting councils allocate a portion of their funds to interdisciplinary research and development.
- e. The councils pay the total cost of performing research, including incremental overhead (and faculty salaries in exceptional cases).

- f. The three granting councils be encouraged to dedicate a specific portion of their budget for first-time applicants who are beginning their research careers.
- g. The three granting councils provide a portion of their budget as a direct grant to universities which can allocate the resources as they see fit to develop an institutional philosophy for research or specific expertise.
- h. The councils set aside a portion of their funds and allocate them to inter-university projects.
- i. The membership of the councils be representative of the demographic make-up of the Canadian population.
- j. The various committees, including the peer review committee, of the granting councils ensure balanced representation of all sectors of the research community (academia, government and the private sector).

Departmental Contracts to Universities

The options and suggestions presented by the Ministerial Task Force Study Team on Government Procurement to restimulate contracting-out be implemented.

Support for Industrial R&D

Contracting-out

The options and suggestions presented by the Ministerial Task Force Study Team on Government Procurement to restimulate contracting-out be implemented.

TABLE 1

INVESTMENT IN RESEARCH AND DEVELOPMENT BY
SELECTED OECD COUNTRIES (1981)

	GERD/GDP*	INDUSTRIAL R&D/DPI**
United States	2.52	2.0
West Germany	2.49	2.2
Japan	2.38	1.6
Sweden	2.23	2.3
France	1.97	1.5
Netherlands	1.88	1.3
Canada	1.22	0.8

* GERD as a percentage of GDP

** Industrial R&D as a percentage of DPI

Source: OECD, Paris

TABLE 2

GOVERNMENTS EXPENDITURE ON RESEARCH, 1981

	CANADA	USA	JAPAN	GERMANY	FRANCE	SWEDEN	NETHER- LANDS
Business Enter- prise	12.3%	46.0%	4.4%	27.7%	27.3%	22.8%	8.5%
Government	60.2%	24.8%	40.4%	31.6%	41.4%	15.0%	39.5%
Higher Education	27.0%	24.8%	51.9%	39.8%	30.9%	61.8%	47.4%
Private Non-Profit	0.5%	4.3%	3.3%	1.0%	0.4%	0.5%	4.7%

Source: OECD, Paris

TABLE 3

FEDERAL S&T EXPENDITURES 1984/85

(\$ Millions and % of Total Expenditure)

	TOTAL S&T 4,103 100%			
	NSE S&T 3,362 82%		SSH S&T 741 18%	
	R&D 2,191 53%	RSA 1,171 29%	R&D 156 4%	RSA 585 14%
Intramural	1,057 26%	977 24%	59 1%	518 14%
Industry	537 13%	93 2%	7 0.2%	11 0.3%
Universities	448 11%	47 1%	57 1%	24 0.6%
Others	149 4%	54 1%	33 0.8%	32 0.8%

Source: Statistics Canada

APPENDIX B

FEDERAL EMPLOYEES IN SCIENCE AND TECHNOLOGY

	Natural Sciences		Social Sciences		Total	
	#	% of Total	#	% of Total	#	% of Total
1976/77						
R&D	15,500	43.5	1,410	4.0	16,910	47.5
R&D+RSA	23,640	66.3	12,000	33.7	35,640	100.0
1980/81						
R&D	15,280	46.2	820	2.5	16,100	48.7
R&D+RSA	23,440	70.9	9,600	29.1	33,040	100.0
1984/85						
R&D	16,510	47.3	690	2.0	17,200	49.3
R&D+RSA	25,060	71.8	9,830	28.2	34,890	100.0

GRANTING COUNCILS

MEDICAL RESEARCH COUNCIL OF CANADA

DESCRIPTION

The Medical Research Council (MRC) Program can be divided into two principal activities: Grants and Scholarships, and Administration. The former activity encompasses all the grants provided and accounts for the majority of the Program's expenditures. It is broken down into four sub-activities, namely: Grant Programs (Grants-in-Aid and others); Personnel Support Programs (Salary Support and Research Training); Travel and Exchange; and Other Activities.

The primary responsibility of MRC is to provide support for research and research training conducted mainly in Canada's 16 medical schools, 10 dental schools and eight pharmacy schools, and their affiliated hospitals and institutes.

The Administration Activity (3 per cent of total budget) includes personnel costs and services required for the functioning and operation of the granting process and for the administration of the Council and its committees.

OBJECTIVE

The primary objective of the MRC and its programs is to assist in attaining the quality and scale of research in health sciences essential to the maintenance and improvement of health sciences and of health care delivery. Additionally, there are sub-objectives which address the training of research investigators in the health sciences and the provision of an adequate research base for higher education.

AUTHORITY

MRC's mandate is based on the authority and responsibility assigned to it under the Medical Research Council Act (R.S., C.M-9), proclaimed in 1969.

HISTORY

MRC previously was under the aegis of the National Research Council of Canada, where a formal mechanism for the federal support of medical research was established in 1938.

The first five-year plan for MRC was approved in principle in 1983 for five years starting in the 1983/84 fiscal year. Even though the plan was approved in principle and additional resources were provided for the first two years, no specific long-term funding commitment was made by the government. The resources allocated to MRC are summarized below:

Year	Current \$ (000s)	Increase Year-to- Year (%)	Constant* 80/81 \$ (000s)	Increase Year-to- Year (%)	PYs
80/81	82,000		82,000		39
81/82	100,200	22	89,100	9	39
82/83	113,400	13	96,000	8	45
83/84	140,800	25	109,100	14	51
84/85	157,100	12	116,000	6	54

*Calculated using CPI

The administrative costs of the Council have been approximately 3 per cent of the total shown in the table above.

Of the \$157.1 million allocation to MRC for 1984/85, \$30 million was given for that year only. Early in 1985/86, a \$30.9 million supplement was given to MRC, again only for this fiscal year.

The average annual real growth in resources for MRC from 1979/80 to 1984/85 has been 8 per cent (includes non-A-base monies).

MRC's expenditure by program for 1984/85 is given below:

Program	84/85 Expenditure (\$000s)	
Grants	127,700	
Personnel Support	24,700	
Other Activities*	0,900	
Major Equipment	---	
Administration Person-years	3,800	(54)
TOTAL	157,000	(54)

* "Other Activities" includes the President's Fund, Canadian Council on Animal Care and Site Review and Promotion.

The geographic distribution of expenditures by MRC on grants and scholarships in 1984/85 was:

Province/Territory	Expenditure (\$000s)
British Columbia	13,230
Alberta	11,959
Saskatchewan	3,996
Manitoba	8,466
Ontario	56,120
Quebec	47,711
New Brunswick	--
Nova Scotia	5,236
Prince Edward Island	--
Newfoundland	1,966
Northwest Territories	--
Yukon	--
TOTAL for Canada	148,689
U.S. and other countries*	4,502
TOTAL MRC (84/85)	153,191

* Fellowships and visiting scientists only

STRUCTURE

The Council is composed of a full-time President, who is also the chief executive officer, and 21 members, representative of the scientific and lay community, who are appointed by the Governor-in-Council and serve without remuneration. Membership on the Council also includes three associate members who represent the other two federal granting agencies and the Department of National Health and Welfare. The Council's programs are administered by a secretariat of 54 person-years located in Ottawa. Assistance is provided by four Standing Committees chaired by Council members. These are the standing committees on: Research Funding; Personnel; Priorities and Planning; and Ethics in Experimentation.

The process of peer review determines which grants and scholarships are to be awarded. This process consists of 23 grant and six award committees with a total membership of over 250 working scientists drawn primarily from universities. MRC also utilizes over five thousand external referees, selected from both Canada and other countries. These officials do not receive remuneration.

MRC reports to Parliament through the Minister of Health and Welfare.

RESOURCES (\$000s)

MRC will be submitting an update of its first five-year plan to Cabinet in the near future. The Treasury Board approved resources for the Council currently are:

	85/86	86/87	87/88
Current \$ (incl.admin.)	161,500	130,800	130,800
Person-years	(54)	(54)	(54)

In its 1984/85 update, the council requested the following resources:

	85/86	86/87	87/88
Current \$ (incl.admin.)	165,300	175,000	182,800
Person-years	(N/A)	(N/A)	(N/A)

BENEFICIARIES

As MRC's funds are directed towards funding researchers or groups of researchers, these constitute the main beneficiaries. Most of the beneficiaries are in universities, affiliated teaching hospitals and research institutes. The total number of award recipients (including individuals, groups and institutions) in 1984/85 was approximately 3,800.

RELATED PROGRAMS

Related programs exist within the two other federal granting Councils. Also, Health and Welfare Canada funds health related research under the National Health Research and Development Program (NHRDP), as does the Secretary of State under Centres of Specialization.

ASSESSMENT

In the view of the study team, MRC has provided funding for high quality research. A few projects are funded at private sector facilities. MRC funds approximately 55 per cent of Canada's R&D effort in medical/health sciences.

Most R&D supported by MRC takes place at universities which have schools of medicine, although some health-related R&D is funded at other universities or in the non-medical faculties of the universities with medical schools. There seems to be some overlap in R&D mandate which causes people from non-medical backgrounds to "shop" for grants at MRC, NSERC, the National Health/Welfare R&D program, and the charitable medical research organizations.

The study team believes the administrative costs for the granting council are reasonable and data are adequately organized and presented for the purpose of monitoring the research projects. Liaison with other government departments with similar programs is good to eliminate possible duplication of efforts. Clients are well served. Applications are processed quickly, and if rejected, MRC will refer such applications to other funding agencies if the research proposed is more appropriate to another department or council.

The retention in Canada of people trained in research by MRC funding is reasonably good.

MRC tends to award much larger grants than the other two federal councils, often to teams of researchers, and often including equipment purchases, as well as operating expenses. This procedure appears to have led to the development of centres of excellence, and in fact, several sites in Canada have established world-wide recognition for specific expertise.

The 37 peer review committees are dominated by the medical faculty. Even those committees where non-medical training is not necessarily required have limited non-medical representation (e.g. studentships, fellowships, scholarships, behavioural sciences, clinical trials, experimental medicine). The governing council itself has about half non-medical people, but this balance is not reflected into the granting committees, where other points of view are not well represented. As a result, the government has no way to directly implement policy changes with respect to medical or health research.

A comprehensive study of the social and economic benefits of MRC programs is not available. However, such a study would probably be limited by the complexity of the analysis and current unavailability of reliable methodology to assess benefits.

Projects or researchers funded by MRC can often obtain additional money from the medical charities so that the overall effort is reasonably funded. In this way MRC has the opportunity to get access to about \$2.00 worth of R&D for each \$1.00 that it grants. In some cases where MRC lacks funds or feels a project does not quite fit its mandate, the medical charities may fund the research.

Researchers in the areas of medical appliances, ethical drugs, health delivery, and so on, seem to lack any government source of funds.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. The mandate of MRC be widened to include all health-related research, including the health-related research funded by NSERC, SSHRC and Health and Welfare.

2. The university research programs funded by Health and Welfare and the health-related projects funded by NSERC be under the control of a new MRC, perhaps more appropriately called Health Research Council (HRC).
3. The HRC augment its efforts to fund research in non-medical faculties, addressing issues which seem to be underfunded such as accident prevention, delivery of health services, preventive medicine and transfer of technology to the industrial sector and other areas.
4. Additional funding for clinical researchers be considered to allow for closer cooperation with other researchers in medical and non-medical fields to augment the scientific basis for some clinical research.

A discussion of options and recommendations common to all three granting councils, including MRC, is given in the separate paper. It addresses policy direction, funding and organization and should be read in conjunction with the above.

GRANTING COUNCILS

NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA

DESCRIPTION

The two principal activities of Natural Sciences and Engineering Research Council of Canada (SERC) are Grants and Scholarships and Administration. The Grants and Scholarships Activity is broken down further into six sub-activities, namely: Research Grants, Research Infrastructure Grants, University-Industry Program, Developmental Grants, General Research Support, and Research Manpower Awards.

The grants and scholarships are provided primarily to support research and research training activities in the natural sciences and engineering, mainly but not exclusively, in Canadian universities and affiliated institutions. The funding is provided to selected individuals and groups.

The administration activity (3 per cent of total budget) provides management and administrative support to the Grants and Scholarships Activity.

OBJECTIVE

The general objective of NSERC is to promote and support the development and maintenance of research and the provision of highly-qualified manpower in the natural sciences and engineering.

AUTHORITY

The establishment of NSERC and its mandate are based on Part III of the "Government Organization (Scientific Activities) Act, 1976" which was proclaimed in 1978.

HISTORY

NSERC's first five-year plan was approved in principle in 1979, and reaffirmed in 1981. The approval was limited essentially to program objectives, and no specific funding alternative was adopted. Since then, ministers have, yearly or more frequently, authorized increases in NSERC's resources on a case-by-case basis. A number of these have been incremental and have not been added to the base

resources of NSERC. The table below summarizes the resources approved for NSERC:

Year	Current \$ (000s)	Increase Year-to- Year (%)	Constant 80/81 \$ (000s)	Increase Year-to- Year (%)	PYs
80/81	\$162,700		\$162,700		75
81/82	201,500	24	179,300	10	81
82/83	244,400	21	206,900	15	98
83/84	282,100	15	218,700	6	120
84/85	311,600	10	230,000	5	138

The administration cost of NSERC has been approximately 3 per cent of the totals shown above.

In contrast to the \$311.6 million allocation for 1984/85, the longer term A-base funding level of the Council amounts to \$288.7 million.

NSERC's budget is 60 per cent of the combined budget (\$530 million) of the three councils.

The funding pattern for NSERC has been erratic, and budgetary uncertainties exist. However the council has fared reasonably well with respect to an increase in resources, having an average annual real growth from 1980/81 to 1984/85 of 9 per cent per year (includes non-A-base monies).

NSERC's expenditures by program for 1984/85 are given as follows.

Program	84/85 Expenditure (\$000s)
Research Grants	\$176,562,144
Research Infrastructure Grants	33,048,964
University-Industry Program	18,547,124
Developmental Grants	3,122,663
General Research Support	22,255,174
Research Manpower Awards	46,991,441
Administration Person-years	11,031,785 (138)
TOTAL	311,559,295

"General Research Support" category is comprised of General Research Grants, the International Program, Publication Grants, Conference Grants, Travel Grants, General Promotion Grants, Workshops and Seminars, and Miscellaneous Grants.

The geographic distribution of expenditures by NSERC in 1984/85 was:

Province/Territory	Expenditure
British Columbia	\$ 35,859,471
Alberta	24,648,703
Saskatchewan	9,927,202
Manitoba	9,584,154
Ontario	122,032,845
Quebec	58,864,101
New Brunswick	5,652,910
Nova Scotia	11,514,104
Prince Edward Island	143,102
Newfoundland	5,035,151
Northwest Territories	---
Yukon	---
Other in Canada	11,612,853
Total for Canada	294,874,596
U.S. and other countries	<u>5,652,914</u>
TOTAL NSERC (1984/85)	\$300,527,510

STRUCTURE

Within the allocated budget, NSERC sets priorities, allocates budgets, selects and determines the value of grants and awards, and disburses the funds. The council is assisted in this by advisory committees. The advisory committees advise and assist the council in all policy, budgetary and where applicable, operational matters pertaining to the specific programs for which responsibility has been delegated by the council. Chaired by a council member, these committees are composed of council members and non-council members from universities, industry and government. They are responsible for making recommendations to the council on policies and priorities and, where applicable, to the president on grants and scholarships to be made from a pre-determined budget allocated by the council to the program under their purview.

Recommendations on grants and scholarships to be awarded are based on reviews conducted by selection

committees composed of hundreds of experts with varying affiliations. In addition, the peer review process relies on the advice of many external referees. As a result of the operation of this network of committees (whose membership is renewed on a regular basis), the council arrives at its final budget allocations through an iterative process. The preliminary allocations projected in the Estimates reflect the council's priorities and intentions, but these are modified and refined at various times throughout the year on the basis of increasingly more accurate information on actual requirements, taking account of the volume and quality of applications as assessed by the selection committees.

The council has final authority over all matters pertaining to the management and administration of its programs and resources.

The Minister of State for Science and Technology is responsible to Parliament for NSERC.

RESOURCES (\$000s)

The final year of NSERC's first five-year plan was 1984/85. The council's second five-year plan is expected to be tabled at the Cabinet Committee on Economic and Social Development (CCERD) in the near future. The currently Treasury Board approved resources for NSERC are:

	85/86	86/87	87/88
Current \$	295,500	289,100	288,700
Person-years	148	143	142

In its five-year plan submitted to Cabinet in October 1985, the preferred option presented by the council is:

	85/86	86/87	87/88	88/89	89/90
Current \$	340,300	443,200	566,100	660,800	771,200
Person-years	152	188	222	249	300

The increases requested are primarily to expand existing programs, to cover more overhead costs of research and to initiate two new programs.

BENEFICIARIES

The principal recipients of the council's grants and/or scholarships are: undergraduate and post-graduate students, post-doctoral fellows, professors and Canadian industry which benefits from salary support for specific individuals in training. The Canadian Microelectronics Corporation receives direct support. About 17,000 individuals, directly or indirectly receive NSERC funds.

NSERC provides support based primarily on merit. The recipients are distributed in all regions of Canada.

RELATED PROGRAMS

Other departments and agencies fund research carried out at universities via grants, contributions, contracts or fellowships. The work requested by the departments is usually in support of an intramural mission-oriented task. In essence, the departments are purchasing expertise from educational institutions where NSERC builds that expertise. Some fellowships funded by departments are managed by NSERC. Examples of related programs are Northern Science (DIAND), University Program (Transport), Centres of Specialization (SOS), University Research (DIAND), Environmental Protection and Research (DIAND), Northern Research (DIAND) and possibly cooperative programs of IDRC.

ASSESSMENT

In the view of the study team, administrative costs for NSERC are reasonable and data are well organized and presented for the purpose of monitoring the research projects. Liaison with other government departments with similar programs to eliminate possible duplication of efforts is good. Clients are well served in that applications are processed quickly, and NSERC will refer such applications to other funding agencies if the scope of the research proposed is more appropriate to another department or council.

An analysis of the economic benefit resulting from the R&D would be desirable and should be, in the view of the study team, at least attempted. This type of analysis is in many cases very difficult to carry out and can be subjective.

The retention in Canada of people trained in research by NSERC funding is good (over 80 per cent), and at present the overall university-government-private sector is generally finding an adequate number of highly skilled professionals. There are exceptions in specific disciplines.

Operation of NSERC's programs could now be considered mature as it enters its second five-year plan and operates from its own headquarters, divorced from NRC (with the exception of some 18 committee members from NRC out of a total peer review committee system involving approximately 460 scientists and engineers).

In its second five-year plan, NSERC has requested an accumulated increase to their base budget of \$1.6 billion over five years. Based on the rationale of this plan (including the assumption that NSERC should pay more infrastructure costs) and the need for fiscal restraint, in the opinion of the study team, this suggested increase is not appropriate at this time.

The upper ranges of the projections in the five-year plan for the increased needs for highly qualified personnel who could be trained with the NSERC grants are probably excessive. These projections are questionable, particularly in this era of economic uncertainty.

NSERC's grants committees operate quite independently of the government, with about 65 committee members out of 462 being from federal or provincial government departments or agencies. The Program Evaluation and Audit Committee in fact has no federal government representative and, in the study team's view, inadequate private sector representation.

The grants committees lack balanced representation from the private sector research community. About 56 members out of 462 appear to be from the private sector, and of these 10 are from the Ottawa area, representing one industrial sector. Basically, the review committees consist of academic staff granting money to other academic staff without significant outside input into the process by the private sector or the government itself. Out of 47 committees, only a few have balanced representation from the three sectors. NSERC recognizes this and is taking steps to increase private sector representation on the committees.

NSERC only pays the marginal or direct cost of R&D and does not pay overhead charges which could be allocated to specific research projects in the university. This procedure allows more grants to be made from the same pot of money. The actual percentage to be paid for overhead would have to be established by standard accounting procedures such as those used by DSS.

A large portion of the NSERC money granted to the universities is turned over to approximately 7,000 graduate students as wages for performing laboratory test work, data collection, summer employment, etc. Each professor at his discretion sets the amount (within guidelines) to be paid to the student, and in effect "bids" for students. The dual role of the funding of research and aiding students potentially causes conflicts as the professor attempts to divide the money between the students' needs and other expenses, such as operating costs.

At present 60 per cent of the faculty in the natural sciences and engineering are obtaining money from NSERC, but this does not appear to be a static pool of people. Over a 10-year period, there has been a significant attrition rate of funded researchers and new researchers have been added.

NSERC recognizes the need to make larger grants to teams of researchers, to include equipment and incremental overhead to support the team and its equipment. Financial constraints have made this attempt to concentrate resources very difficult, and if not carefully administered such a policy could cut research funds for researchers at the small universities.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. Directing more NSERC money at team activities and making larger more comprehensive grants to cover all costs including capital equipment and maintenance. In the past, in their efforts to please too many people, many NSERC grants have been too small to be effective. Targets and objectives could be more precisely defined and the total number of researchers decreased in order to

aim money at potential centres of excellence. This need to focus resources has been pointed out previously.

2. Directing NSERC to undertake some funding at private, non-profit foundations performing research.
3. Having a specific trial subprogram with dedicated funds should provide monies for enhanced technology transfer from university to industry. A program at NRC exists (PILP) by which industry can identify university based research on technologies it wishes to acquire, but no "mirror image" program exists whereby a professor can solicit industry support for research and have costs reimbursed.
4. Basing supply and demand of researchers on market forces and not NSERC's personnel projections.
5. Moving health or medical related research which may be currently funded through NSERC to MRC.
6. Having NSERC endeavour to make its data processing facilities available to and compatible with the needs of the other two granting councils to decrease overall administrative expenses.

A discussion of options common to all three councils is given in a separate paper. The paper addresses policy direction, funding and organization. This should be read in conjunction with the recommendations above.

GRANTING COUNCILS

SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL OF CANADA

DESCRIPTION

The Social Sciences and Humanities Research Council (SSHRC) has identified two areas which best describe its activities: Grants and Scholarships and, Administration. The former can be further broken down into the following sub-activities: Disciplinary-Based Research; Priority Research and Priority Areas; Human Resource Development; Research Communications; and, International Relations.

The Council administers programs of fellowships for research training, and grants for research, scholarly publishing, conferences, international scholarly exchanges and research-related activities.

The Council provides support to individuals, groups and organizations in all provinces and territories and also supports endeavours abroad.

OBJECTIVE

The current program objective of SSHRC is to support specific activities within the Canadian research community; to promote and assist research and scholarship in the social sciences and humanities; and, to encourage excellence therein.

AUTHORITY

SSHRC was created by Part 1 of the Government Organization (Scientific Activities) Act, 1976.

HISTORY

SSHRC began operations in April 1978, and took over the programs administered by the Humanities and Social Sciences Division of the Canada Council. The first five-year plan for SSHRC was approved in principle in 1979, with the first year of the five-year plan being 1980/81. No long-term commitment was made by the government with respect to resources and some monies were non-A-Base.

The recent funding history of SSHRC has been the following:

Year	Current \$ (000s)	Increase Year-to-Year (%)	Constant 80/81 \$ (000s)	Increase Year-to-Year (%)	PYs
80/81	41,700		42,200	-2	105
81/82	46,600	12	41,500	1	105
82/83	56,400	21	47,300	16	105
83/84	60,000	6	46,500	-3	105
84/85	62,800	5	46,300	-1	104
85/86	60,900	-3	43,200	-3	107

The administration cost has been approximately 9 per cent per year of the total shown in the table above.

Of the \$62.8 million allocation for 1984/85, \$3.9 million was allocated up to that year only, and \$2.0 million up to 1986/87 inclusively.

The average annual real growth in SSHRC's resources since 1980/81 has been 2.3 per cent per year. This is well below that of the other two councils. Furthermore, the real purchasing power of SSHRC has actually decreased during the last two fiscal years.

SSHRC'S Expenditure by program for 1984/85 is given below:

Program	84/85 Expenditure	
	1984	
	(\$000s)	
Human Resources	14,700	
Discipline Research	28,500	
Strategic Research	7,200	
Research Communication	6,600	
Administration Person-years	5,800	(104)
TOTAL	62,800	(104)

The geographic distribution of grants and scholarships program expenditures by SSHRC in 1983/84 was:

Province/Territory	Expenditure (\$000s)
British Columbia	4,343
Alberta	1,827
Saskatchewan	383
Manitoba	1,107
Ontario	21,780
Quebec	12,211
New Brunswick	566
Nova Scotia	1,284
Prince Edward Island	170
Newfoundland	673
Northwest Territories	-
Yukon	-
National	<u>5,970</u>
Total for Canada	50,314
United States and Other Countries	<u>4,115</u>
TOTAL SSHRC 1983/84	54,429

STRUCTURE

The adjudication of grants and recommendations on applications are made on the basis of peer assessment. This involves a large number of selection committees, composed of experts from the research community. Selection committees recommendations on grants applications are submitted for approval by the council or directly to the president of the council, who has been delegated decision-making authority.

The council's organizational/functional structure is supported by a multi-level committee structure, with external membership. This structure is made up of policy advisory committees, operational grant selection committees, and committees that combine a policy and an operational role. The external membership has at its head the council's board made up of 22 members appointed by the Governor-in-Council, and two committees composed of selected council members: The Executive and Audit and Evaluation Committees. The council is assisted by three groups of external committees: i) the Advisory Academic Panel, a 12-member committee of researchers representing various

disciplines and regions of the country, which advises the council through the Director General, Programs, on selected matters of research and program policy; ii) the Liaison Committee, composed of representatives from the seven major scholarly organizations in Canada, which provides a consultative forum on the council's orientation and operations; and iii) the peer adjudication committees for each program or cluster of programs, also composed of representatives of the Canadian research community.

The senior committees (Executive, Audit and Evaluation) report directly to council, advise and assist council on policy, budgetary and, where applicable, operational matters. The Executive Committee has the same powers and functions as the council between meetings of the latter, whereas the Audit and Evaluation Committee monitors execution of Council's audit and program evaluation plans.

SSHRC reports to Parliament through the Secretary of State.

RESOURCES (\$000s)

	85/86	86/87	87/88
Reference Levels	60,900	60,900	58,900
Person-years	107	108	108

The last year of SSHRC's five-year plan was 1984/85. The council has prepared a second five-year plan which is expected to be submitted to Cabinet in the near future.

In its second five-year plan, the council requests the following total resources:

(\$000s)	85/86	86/87	87/88
Current \$	67,100	77,500	97,800
Person-years	107	112	121

BENEFICIARIES

The beneficiaries of the fellowships and grants are recipients who are either pursuing academic studies or undertaking research projects. A spin-off benefit is the creation of jobs for undergraduate and graduate students.

In 1984/85, approximately 4,100 awards were made. Of the 38,000 full-time graduate students in Canadian universities, about 65 per cent (25,000) are in the social sciences and humanities. Of the 34,000 full-time faculty in Canadian universities, about 55 per cent (19,000) are in the social sciences and humanities.

RELATED PROGRAMS

Related programs exist within the other two federal granting councils. Also, other federal departments have programs which support R&D at universities, namely some components of NHRDP (DHW), Northern Welfare Grants (DHW), Multicultural Research (SOS), Criminology Programs (OSG), Northern Science (DIAND), University Program (Transport), Women's Chairs (SOS), Centres of Specialization (SOS) and Bora Laskin Scholarship (SOS), administered by SSHRC. Assessment notes on these have been prepared by this study team.

ASSESSMENT

The SSHRC in its role as a granting council is an important component of the overall R&D effort in Canada. The council promotes research and related activities which further the knowledge of Canada, its history and heritage, its social economic and cultural life, and its place in the world community.

Awards made by SSHRC are the smallest of the three granting councils. The total funds available for all graduate students plus faculty members are one-tenth those available to the other granting councils.

A relatively large number of awards are made. There appears to be a preliminary effort to focus resources, and encourage centres of excellence. SSHRC's second five-year plan indicates that this effort will be increased if resources are made available.

The administrative person-year requirement of SSHRC is considerably higher than that of the other two councils; it covers more disciplines, has a larger clientele, and has a smaller budget.

The membership of the Council committees consists primarily of academic personnel, and thus other points of view are not well represented. Committee members may have a vested interest in the awards.

In the view of the study team, it appears the SSHRC has not given sufficient priority to sustain its declared Canadian studies and targeted research thrusts. It has given no priority to Canadian studies research applications in its selection and budget allocation processes.

The oversupply of people trained in the social sciences and humanities is now leveling off. Looking to the future, there are increasing apprehensions about the possibility of an undersupply of Canadian trained academics in these fields five to 10 years hence.

Impact and benefit analyses of the R&D conducted as a result of SSHRC funding would be desirable. However, currently there does not appear to exist adequate or reliable methodology to conduct such analyses.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Reducing administrative costs by granting additional monies to the universities based on the past performance of the overall faculty.
(Universities currently receive approximately \$2 million via this route).

The university in turn would then have the delegated authority to approve specific research expenses such as travel, research assistants, library acquisitions and so on. Central coordination would still be through SSHRC. External referees could still be called on for input.

2. Reviewing the present practice of not granting a tax credit for research in social sciences and humanities.

There is a problem in precisely defining the research activities in social sciences and humanities for tax purposes. Tax credits, however, could encourage the private sector to invest more in this type of research. It has been observed that R&D into human and organizational behaviour is as important to improved productivity as is new technology.

A discussion of options common to all three granting councils, including SSHRC, is given in a separate section. It addresses policy direction, funding and organization and should be read in conjunction with the above.

TARGETED RESEARCH PROGRAMS
RESEARCH AND PRODUCTION DEVELOPMENT
AGRI-FOOD RESEARCH BRANCH
AGRICULTURE CANADA

DESCRIPTION

Agriculture Canada provides funds to universities and university students via three categories:

1. Training Program - M.Sc. and Ph.D. students are paid a salary while attending university to obtain a degree in a program of high priority to Agriculture Canada. After graduation, students are required to work for the federal government for a period of up to twice the amount of time they were on educational leave.
2. Contracting-Out to Universities - Projects in toxicology, processing/distribution/retailing of food, and energy usage on farms are contracted-out to universities through the Department of Supply and Services.
3. Grants and Contributions - These are given to specific universities as grants in aid of research.

OBJECTIVE

Research is supported in aid of Agriculture Canada's general mandate to develop and transfer new knowledge and technology in the areas of natural resources, crop and animal productivity, food processing, distribution and retailing, while considering the concerns of the consumers.

AUTHORITY

Appropriations Act, Experimental Farm Stations Act.

HISTORY

The training program will be reviewed on an annual basis to determine whether or not it should continue, and if so, at what level.

Contracting-out is part of the general "Make or Buy" policy of the government.

University Contributions has been a long-standing program at Agriculture Canada.

RESOURCES (\$000s)

	83/84	84/85	85/86	86/87
Training (being phased out)	1,219	1,834	1,876	
Contracting-Out (Universities only)	4,299	5,016	8,093	1,780
Grants & Contributions	15,585	2,173	1,906	999
TOTAL	21,103	9,023	11,875	2,779

The total research budget for Agriculture Canada for 1985/86 is \$263 million, or about \$26 million more than the 1984/85 budget.

BENEFICIARIES

All of the money is given to Canadian universities or university students.

A few contracts are also let to the private sector but these amounts are not included in this paper.

ASSESSMENT

In the view of the study team, the training program no longer seems necessary. Agriculture Canada recognizes this and is phasing this program out, relying on NSERC to support students pursuing post-graduate degrees in sciences related to agriculture. Agriculture Canada has expressed concern that NSERC may not always adequately consider the agriculture sector in its operating grants and strategic grants program.

Contracting-out has been an effective way to get research done. Unfortunately, whenever budget cuts are

made, the contracting-out budget is the first to be cut. The Agriculture study team identified low priority items in the A-Base budget of Agriculture Canada totalling \$12 million in 1984/85 and \$7 million in 1985/86. The response of Agriculture Canada has been to honour the contracts now signed, slash the budget for contracts by a factor of 4 in 1986/87 (presumably to complete the signed contracts) and then abolish contracts by 1987/88. This seems to contradict current government policy regarding "make or buy" since in the period 1984/85 to 1985/86, the research budget for Agriculture Canada as a whole has risen 11.8 per cent.

The Agriculture study team was critical of the quality of research done within the department, as was the Wright Task Force. This study team supports the findings of the other two groups and their proposals to revitalize the department.

The grants and contributions are administered by Agriculture Canada with their own internal peer review committee consisting of their own staff to a large extent, plus some outside researchers. This review process does not seem to be as rigorous as the one used by the granting councils. The scholarship component is already managed by NSERC.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. (Preferred) Phasing out the training program.
2. (Preferred) Subjecting the Agriculture Canada in-house research program to a rigorous examination by outside peer reviewers and terminating low priority programs. Money saved could be redirected to contracts at universities and/or the private sector.
3. Retaining the status quo and deleting contracting-out as planned. It is hoped the intramural research would not be allowed to grow uncontrollably.

Grants and Contributions

4. (Preferred) Transferring the responsibility for grants and contributions to the granting councils.
5. Maintaining the status quo.

TARGETED RESEARCH PROGRAMS

HUMAN RESOURCES PROGRAM

AGRICULTURE CANADA

DESCRIPTION

The Human Resources Program was initiated in 1983/84 with the goal of increasing professional manpower development in the forest sector. Much of the \$15 million over the three-year approval period has been directed at the six forestry schools in Canada with the intent of improving the quality of masters, doctoral and post-doctoral degree programs. A minor component was directed at skill upgrading within the eight Canadian Forestry Service institutes and research establishments.

OBJECTIVE

The objective of the program when it was started, which remains the same today, involved increasing professional manpower development in the forest sector through four main elements: student employment; grants to university forestry schools; R&D contracts to universities; and, upgrading of the Canadian Forestry Service's (CFS) professional staff skills.

AUTHORITY

Appropriations Act

HISTORY

The program started in April 1983, mainly as a result of a strong consensus of opinion that the forest sector lacked adequate numbers of professional foresters and forest researchers to meet current and projected needs. In particular, a large gap existed between the actual supply of masters and doctoral forestry post-graduates at Canadian universities and the needs of the forest industry as perceived by CFS.

The program, envisioned as a continuing one, has witnessed no major changes, and none are foreseen in the future.

STRUCTURE

The Human Resources Program is administered from CFS Headquarters, with two person-years assigned for this purpose. CFS Regional Centres and Institutes participate in the selection of award recipients, and representatives from these establishments sit as members of selection committees held at Headquarters. Scientific advisors share coordinating roles for the various components (mentioned below). The appropriateness and priorities of the research and development program are established through discussions with universities, the forest industry, and provincial ministers of forest. Regular meetings are held with NSERC.

RESOURCES (\$000s)

The following are estimates and forecasts of expenditures for the program:

Component	83/84	84/85	85/86	86/87	87/88
Career Oriented Summer Employment Program	1,120	1,232	1,284		
Block Grants to Forestry Schools	1,289	1,789	2,289		
Forestry Scholarships	263	390	580		
Research & Development Contracts at Canadian Institutes	920	1,476	1,500		
Post-doctoral fellowships	50	160	220		
CFS Staff Development	-	90	130		
Program Administration	70	74	77		
TOTAL	3,712	5,211	6,080	6,000	6,300

The budget breakdown for 1985/86 is \$2.869 million for grants and contributions, \$3.134 million for operation and maintenance and \$77,000 for salaries. Of the total \$6.080 million, \$5.740 million comes from non A-Base sources.

All funding is dedicated to the natural sciences.

BENEFICIARIES

These include students and faculty at Canadian universities, particularly those associated with the six forestry schools and/or engaged in studies pertaining to the forestry field.

RELATED PROGRAMS

The Natural Sciences and Engineering Research Council (NSERC) has both a Forestry Development Program and a Special Program of Postgraduate Scholarships in Forestry exclusive to the six forestry schools. These programs complement the CFS program since they fund basic research more than applied research and forest management-oriented studies.

ASSESSMENT

The program satisfies the needs of the forestry industry as perceived by CFS.

In the view of the study team, other programs exist within NSERC and CFS which could perform the same function.

Even though the industry has some input, it does not provide direct financial support to the program.

Good communications exist among CFS, NSERC and CEIC related to the needs of forestry schools and the need for forestry graduates.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Giving management of the program to NSERC by transferring the monies to NSERC and having CFS involved in the project selection, or, alternatively, retaining the monies in CFS's base budget, and having NSERC distribute the grants.

2. (Preferred) Transferring the responsibility to the forestry industry (e.g. Pulp and Paper Research Institute of Canada) which could, in turn, receive some financial support from the federal government, perhaps about half of the current level. The industry would be charged with establishing its needs and would provide the appropriate support to the universities in the areas identified.

TARGETED RESEARCH PROGRAMS
UNIVERSITY RESEARCH PROGRAM
DEPARTMENT OF COMMUNICATIONS

DESCRIPTION

This program contributes to the attainment of the DOC mandate through contracts to selected Canadian universities for mission-oriented R&D. The contracts are administered by DSS. Proposals are obtained by approaching specific universities. DOC has a committee which decides which universities have appropriate researchers and are allowed to submit proposals. In many cases, DOC only pays part of the cost, and other governmental or private organizations will cover the balance of the costs. About 30 contracts per year are administered with a typical value of \$28,000 per year per contract for up to four years.

This is part of an overall industrial and university support program of \$11.28 million (1985/86) out of a total budget for DOC of \$353.4 million. As such, it is a minor activity in a large department which has a research budget of \$42.7 million and a staff of 512 researchers.

OBJECTIVE

The principal objective is to fund applied R&D in the broad technical areas of communications science, systems engineering, radar, space mechanics and the socio-economic aspects of the modern communications environment. This R&D supports the DOC mission by supplementing intramural research. A secondary objective of this program is to create and develop centres of expertise in the universities.

AUTHORITY

The Appropriations Act.

HISTORY

The program was initiated in 1971 with a budget of \$375,000, in response to a perceived need for greater contact between DOC and the academic community. An in-house review of the program is currently underway.

STRUCTURE

The program is administered by a part-time manager who requests proposals from universities on the short list. The sub-committees then review the proposals, and those deemed suitable are awarded a contract. The Program Directorate then administers the contracts, makes appropriate payments, and assigns a scientific authority to each project.

RESOURCES (\$000s)

83/84	84/85	85/86
780	784	828

The program uses one person-year, plus various part-time support for proposal review and contract management, which were not identified.

BENEFICIARIES

Twenty-one Canadian universities receive the funds.

RELATED PROGRAMS

Similar grants are made by NSERC and SSHRC. Contracts of a similar nature are also administered by DSS as part of the normal contracting-out process for scientific R&D. DOC also operates a program for "Centres of Excellence" funded to the level of \$315,000 per year to provide study contracts in French, largely to the francophone universities.

ASSESSMENT

This program was initiated before the granting councils (SSHRC, NSERC) were in operation and before the "Make or Buy" policy was in place. A review of the role of DOC in direct funding of university work is long overdue.

The average size of each award is smaller than the awards made by the granting councils by a factor of two. It is doubtful that much meaningful work could be accomplished with such small awards.

The peer review process for the proposals is entirely within DOC with no input from other groups which fund similar work and no monitoring of the contract awarding

procedures by DSS to ensure that all bids are evaluated on the same basis, and to provide a wider knowledge of government contract administration policies and procedures.

Officials at DOC could not identify any examples which would indicate effective spending.

In the view of the study team, this seems to be a program which has outlived its perceived need and mandate as set up some 14 years ago.

This program also seems to overlap with DOC's own program for centres of excellence in that both programs provide contracts to universities for similar purposes.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. (Preferred) Terminate the program, together with the overlapping centres of excellence program.
2. Transfer funds to the appropriate granting council, and use the DSS contracting system for specific projects in the event that universities do not provide proposals to the granting councils which meet all of the needs of DOC.

TARGETED RESEARCH PROGRAMS
RESEARCH ACTIVITIES CONTRACTED TO EDUCATIONAL INSTITUTIONS
DEPARTMENT OF NATIONAL DEFENCE

DESCRIPTION

The Department contracts out on both a solicited and unsolicited basis to fulfill its research requirements.

OBJECTIVE

To utilize the best capability available in the country to meet national security requirements.

AUTHORITY

National Defence Act.

STRUCTURE

The Centre for Research and Development is responsible for the administration of the Defence establishment laboratories, the five major R&D thrusts, as well as policy in the areas of industry, university and international R&D.

RESOURCES (\$000s)

83/84	84/85	85/86
5,400	6,100	7,600

These are primarily in the form of contracts.

BENEFICIARIES

Canadian universities with the capacity to contribute to the research efforts of the Defence establishment are beneficiaries of the program.

RELATED PROGRAMS

The Defence Industry Productivity Program (DRIE) is related.

ASSESSMENT

DND has increased its overall commitment to contracting-out R&D over the past two years. In 1983/84, \$40 million and in 1985/86, \$90 million were allocated to Canadian industry.

Allocations to universities over the same period increased from \$5.4 million to \$7.6 million.

R&D needs are determined by the requirements of the Defence establishment.

The contract criteria are directed at satisfying a need and achieving excellence.

In the view of the study team, a need for greater links with the university communities to ensure greater awareness of potential research capacities and possibilities.

Technological diffusion is seen as a continuing need and the program expresses support for increased interchange of research personnel between DND, industry and the universities.

OPTIONS

The study team recommends to the Task Force that the government consider continuing the program with increased linkages with universities, direct more research funds to them from the in-house research budget, and increase the level of coordination with the Granting Councils and the Department of Supply and Services.

TARGETED RESEARCH PROGRAMS

TECHNOLOGY CENTRES PROGRAM

DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION

DESCRIPTION

DRIE-sponsored technology centres were formerly supported by the Innovation Activity of the Department, one of five overall activities, under the Development Climate of the Industrial and Regional Development Program (IRDP). Further to major changes introduced in November 1984, the component was terminated and assistance to new technology centres is now provided through the Economic and Regional Development Agreements (ERDA) process.

Although there is no widespread consensus as to what constitutes an actual technology centre, the centres sponsored by DRIE represent only one variety, as noted by a recent MOSST-led study on these centres. Others are sponsored by industry, university, the provinces and the like, and vary according to other criteria such as size, region, technologies and industrial clients.

OBJECTIVE

The objective involved in supporting technology centres is to encourage industrial productivity and competitiveness by increasing the level and efficiency of industrial innovation and promoting the diffusion and application of technology to industry.

DRIE-sponsored centres represent an exception to the rule that the overwhelming majority of federal investment is tied up in the research, rather than the diffusion, end of the innovation and technological development process.

The centres supported by DRIE are not designed as education or research establishments, but as instruments that support industrial/regional development by promoting the adoption and use by industry of technology. The overall objective, therefore, is improved industry productivity and competitiveness.

AUTHORITY

The authority for DRIE's technology centres program was provided by the Treasury Board in 1967.

HISTORY

From 1967 to November 9, 1984, DRIE assisted universities, provincial research organizations and industrial associations in the establishment of technology transfer mechanisms. Assistance was limited to seed or start-up money for a period of five-to-eight years. The annual maximum for each centre varied from \$50,000 to \$1 million, depending on the nature of the centre. Overall expenditures from 1967 to 1985 amounted to \$33 million.

STRUCTURE

Approximately one-third of DRIE centres are university based, one-third are based in provincial research organizations, and one-third are based in industrial associations. While not all of them are separately incorporated, all are directed by a board of directors with a majority of business persons.

RESOURCES

The budget for 1985/86 is in the order of \$8 million for projects previously accepted, or planned under ERDAs.

BENEFICIARIES

Direct beneficiaries include the centres supported by DRIE in universities, industry, and provincial research organizations and, indirectly and ultimately, industry which relies on the ideas and developments generated.

RELATED PROGRAMS

Related programs include other technology centres supported by the federal government, the provinces and industry, and other mechanisms, such as centres of excellence, industrial innovation centres, microelectronic centres, and industrial research associations where the possibility and opportunity exist for transferring technology to meet industrial needs.

ASSESSMENT

In the view of the study team, the centres have had a mixed success record. Some have been extremely profitable (e.g. Welding Research Centre), while others have not made any impact at all (e.g. Mining Industry Research Organization of Canada).

MOSST has recently done an extensive analysis on technology centres.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Continuing to provide seed money to the centres, however more discrimination is warranted in selecting the technologies to be supported.
2. (Preferred) Withdrawing federal support and letting the private sector provide the required resources.

TARGETED RESEARCH PROGRAMS

INDUSTRIAL INNOVATION CENTRES

DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION

DESCRIPTION

Industrial Innovation Centres are supported through the former Institutional Assistance Program. These centres evaluate inventions and new ideas, assist in the commercialization of new products and aid in the establishment of new technology-based companies. As such, they assist in the development of new technologies and the transfer of these technologies throughout the country.

The June, 1978 announcement concerning the centres indicated that the Canadian government would support the start-up of five centres across Canada. However, in view of the novelty and the experimental nature of these, only two were, and continue to be, funded. These are the Canadian Industrial Innovation Centre, based at the University of Waterloo, and the Centre d'innovation industrielle, originally at the Ecole Polytechnique de Montréal.

OBJECTIVE

The primary objective of the centres, as defined in the Treasury Board authority, is to "stimulate an increase in technological innovation carried out in Canada". This objective is to be achieved by:

- a. assisting private inventors and small and medium-sized technology-based companies to develop and commercialize inventions and technical ideas; and
- b. increasing the skills of prospective entrepreneurs by sponsoring the development of, and in some cases teaching, specialized courses in entrepreneurship and technological innovation. These courses are offered by the university to students in the engineering and science facilities as part of the curriculum, and by the centre to inventors and small businessmen through seminars, evening courses and other educational approaches.

AUTHORITY

The related Treasury Board authorities provided eight-year contracts for each centre, with a review to be performed after the first five years to determine whether they are fulfilling their mandates and, also, if they "have good prospects for becoming self-supporting".

A review has recently been undertaken and was positive, with the Minister of DRIE deciding to extend funding for the remaining three years.

HISTORY

Both centres were established in 1980. They were prototypes incorporating the best features of models in other industrialized countries, and were built around the invention assessment activities started by the University of Waterloo in 1976.

Since 1981, their first year of operation, the centres together have advised 8,000 inventors, formally evaluated 3,000 inventions, further developed 250 new products, processes or systems, assisted in the start-up of 45 new businesses and in the negotiation of 17 licence agreements, advised hundreds of small and medium businesses and contributed to the entrepreneurship education of thousands of students and business people.

STRUCTURE

The Innovation Centres are separate, non-profit corporations run by a board of directors derived in majority from the business sector. Both institutions are affiliated with universities.

Both centres are structured along the following lines:

- a. invention evaluation;
- b. product development - developing products through the prototype stage; assistance in securing external R&D services; performing market studies; and undertaking patent searches and patenting;

- c. commercialization of inventions - participating directly in new business ventures, or else licensing or transferring the technology to a third party, done through small incubator facilities; and
- d. education and research - providing advice and assistance to entrepreneurs at all stages of the business start-up, and contributing to the entrepreneurship education of students in business and engineering who have shown interest in starting their own business.

RESOURCES

The original Treasury Board authorities provided each centre with start-up assistance of \$1 million per year for eight years. Based on a recent review of the centres, it was decided to extend funding to each centre for the remaining three years of their contracts.

BENEFICIARIES

The primary beneficiaries of innovation centres are the industrial sector, the inventors and entrepreneurs, as well as researchers and students in the university sector.

RELATED PROGRAMS

In the view of the study team, several related programs (mechanisms) can be said to exist: provincial technology centres; provincial innovation centres (23 to be established in Ontario); centres for industrial research and technology; industrial research associations; and microelectronics centres, which may or may not be affiliated with universities. Additionally, programs such as the Industrial Research Assistance Program of the National Research Council and the activities of Canadian Patents and Development Limited are relevant. The Canada Institute for Scientific and Technical Information (CISTI) program may also bear a relationship.

ASSESSMENT

These centres provide a valuable service to entrepreneurs who may not have knowledge about the patenting system, how to obtain venture capital, how to solicit industrial partners, etc.

The return on federal investment is difficult to evaluate at this time.

The centres enable university personnel to establish a better link with the private sector, thereby making them more aware of industry's needs.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Continuing the program, and expanding centres to major research universities across the country. This effort should be well coordinated with provincial research organizations and the private sector.
2. Turning the responsibility over to provinces.
3. Starting to phase out federal support and encouraging the Centres to become more self-sufficient.
4. (Preferred) Terminating the centres and providing financial incentives to entrepreneurs to pursue their ideas through private sector promoters, patent agents, or self-sufficient centres.

TARGETED RESEARCH PROGRAMS

AIR QUALITY SERVICES AND ATMOSPHERIC RESEARCH

ATMOSPHERIC ENVIRONMENT SERVICES

ENVIRONMENT CANADA

DESCRIPTION

The Atmospheric Environment Services (AES) Directorate administers a program of grants to Canadian universities for research in support of its mandate for research into atmospheric phenomena and meteorology. AES also has a scholarship program for meteorological students at the graduate level, which is administered by NSERC with the funds as part of the AES budget. In 1984/85, a one-time contribution was made to Canadian universities in support of research into the long-range transport of air pollutants.

OBJECTIVES

The objectives of Environment Canada's overall atmospheric research expenditures at universities are to provide the scientific basis for air quality management decisions through research and to address short and long term problems and opportunities in meteorological forecasting, in keeping with its mission.

AUTHORITY

Appropriations Act

RESOURCES (\$000s)

	83/84	84/85	85/86
AES Grants	384	474	596
Scholarships	62	66	80
Other Contributions (long range transport & climate impact studies)	0	105	102
TOTAL	446	645	778

BENEFICIARIES

For both programs, and for the one-time contribution in 1984/85, the beneficiaries have been researchers in the university sector.

RELATED PROGRAMS

Environment Canada also oversees other research programs in water resource management and environmental conservation which involve contributions to universities. Some projects funded through NSERC may also be related.

ASSESSMENT

The programs are in support of Environment Canada's mandate.

In the view of the study team, the projects supported are more application-oriented than those supported by NSERC.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Transferring remaining responsibility for contributions to NSERC with the understanding that Environment Canada will have input during the project selection process. Scholarships are already administered by NSERC.
2. (Preferred) Terminating the program and using the contracting-out route to satisfy the requirements of AES.

TARGETED RESEARCH PROGRAMS

WATER RESOURCES RESEARCH SUPPORT PROGRAM

ENVIRONMENT CANADA

DESCRIPTION

This program of contributions to universities is administered by the Inland Waters Directorate (IWD) of the Environmental Conservation Service (ECS). The ECS is the organizational arm of the Environmental Conservation Activity (ECA), one of three activities within the Environmental Services Program. The IWD for its part oversees the Inland Waters Conservation sub-activity of ECA.

OBJECTIVE

The objectives of Environment Canada's overall water research expenditures are to provide the scientific basis for water resource management decisions through research into quantitative and qualitative aspects of water and to address short and long-term problems and opportunities.

AUTHORITY

The authority for the program resides in the Canada Water Act of 1970.

STRUCTURE

The Water Resources Program is structured so as to give statutory funding support to university institutions for research endeavours primarily in the natural sciences.

RESOURCES (\$000s)

For the Water Resources Program, expenditures constitute the following:

83/84	84/85	85/86	86/87	87/88	88/89
283	284	285	286.4	287.8	289.4

In 1985/86, \$250,000 is in the form of grants and contributions, with 3/4 person-years dedicated to the program.

BENEFICIARIES

The principal beneficiaries are researchers in the university sector.

RELATED PROGRAMS

Environment Canada oversees a variety of environmental conservation activities and programs which are overlapping with this one. Some projects funded through NSERC may also be similar.

ASSESSMENT

The program is in support of Environment Canada's mandate.

The projects supported are more application-oriented than those supported by NSERC.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. (Preferred) Terminating the program and satisfying departmental requirements through contracting-out.
2. Transferring the responsibility for the program to NSERC with the understanding that Environment Canada will have a voice in the selection process.

TARGETED RESEARCH PROGRAMS
WILDLIFE TOXICOLOGY RESEARCH FUND
ENVIRONMENT CANADA

DESCRIPTION

The program is a cooperative venture involving Environment Canada, World Wildlife Fund and Noranda Incorporated. World Wildlife Fund administers the program, provides an executive co-ordinator and secretary (through the appointment of a Research Advisory Board), and coordinates all correspondence with applicants.

OBJECTIVE

The objective of the Fund is to provide high quality scientific information that can be directly applied to the protection of wildlife in Canada from irreversible harm caused by toxic chemicals in the environment.

AUTHORITY

Appropriations Act of June 1985.

HISTORY

The Fund was announced by the Minister of Environment in June of 1985.

STRUCTURE

The program supports up to 50 per cent of the costs of approved research projects, the balance to be derived from non-Environment Canada sources. It is administered by the World Wildlife Fund, through a research advisory board composed of 10 specialists from universities, industry and government, with two representatives from Environment Canada. Noranda has provided a special corporate donation to cover the administrative costs of the program.

Proposals to the Fund must be for practical, applied research with some clearly demonstrated application to solving the priority concerns identified by the Fund. Investigators in any Canadian academic institution or private sector organization which undertakes research

activities contributing to the Fund's priority concerns are thus eligible to apply.

RESOURCES

Expenditures for the initial year (1985) of the Fund are \$1 million. In total, \$3 million has been made available over a three-year time period.

BENEFICIARIES

The prime beneficiaries are researchers in the university sector. The program also supports investigators in the private non-profit sector.

RELATED PROGRAMS

Environment Canada oversees a variety of environmental conservation activities and programs which are complementary to the Water Resource program.

ASSESSMENT

The program is in support of Environment Canada's mandate.

The projects supported are more application-oriented than those supported by NSERC.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. Terminating the program and satisfying departmental requirements through contracting-out.
2. (Preferred) Transferring responsibility to NSERC with the understanding that Environment Canada will have a voice in the selection process.

TARGETED RESEARCH PROGRAMS

RESEARCH AGREEMENTS PROGRAM

ENERGY, MINES, AND RESOURCES

DESCRIPTION

The Research Agreements Program, referred to as the Research Grants Program in the Main Estimates, is administered by the Office of the Assistant Deputy Minister (ADM), Earth Sciences, within the Department of Energy, Mines and Resources (EMR). (This in turn is accomplished through the Program Management and Support Activity, which provides central management and direction to various activities of the Minerals and Earth Sciences Program (MESP), one of two operational programs within EMR, the other being the Energy Program. In addition to the Earth Sciences Sector, the Activity also encompasses the offices of the ADMs of the Mineral Policy Sector and the Research and Technology Sector.)

OBJECTIVES

The primary aim of the Research Agreements Program is to take advantage of the capabilities of a variety of disciplines and technologies, available in Canada, to facilitate the better use of our mineral and energy resources and to provide information on Canada's land mass. Applications for support will be considered by EMR on the basis of the potential significance that the results will have on its objectives, especially on priority areas where research is most urgently needed.

EMR's mission is developed around two principal objectives:

- a. to ensure effective use of the mineral and energy resources for the present and future benefit of the nation; and
- b. to provide information about the land mass and its use to government and to the community at large so that land resources and distinctive physical attributes may be used intelligently and beneficially.

AUTHORITY

The legislative framework for the majority of the activities of the MESP can be found in the Department of Energy, Mines and Resources Act and the Resources and Technical Surveys Act. Under the provisions of these acts, among other things, the minister is authorized to establish scientific laboratories, to conduct research and technical surveys related to the assessment of mineral and energy resources, to prepare and publish maps, and to conduct scientific and economic research related to the mining and metallurgical industries of Canada.

MESP is composed of three major sectors: Mineral Policy, Research and Technology and Earth Sciences. The latter consists of the Geological Survey of Canada, Earth Physics Branch, Surveys and Mapping Branch and Polar Continental Shelf Branch.

HISTORY

The Research Agreements Program was instituted in 1972; EMR itself was established under the Government Organization Act of 1966.

STRUCTURE

The program is structured so that any established Canadian research organization not directly managed by the Government of Canada, and which undertakes research activities in the natural, physical and social sciences and engineering which may contribute toward the achievement of departmental objectives, is eligible to apply on behalf of individual investigators in its employ. Eligible organizations include universities and university research institutions, research councils, industrial research laboratories and museums with ongoing research programs. Currently the bulk of the monies goes to universities.

Aside from the potential contribution to one of the stated departmental objectives, other criteria used in evaluating projects include scientific quality, creativity, feasibility, competence of the investigator, suitability of the applicant's facilities, existence of similar or related projects, training potential, likelihood of stimulating further research, timeliness, and costs relative to probable benefits.

EMR participants in the Program include the Mineral Policy Sector, Energy Policy Sector, the Canada Centre for Mineral and Energy Technology (CANMET), Geological Survey of Canada, Earth Physics Branch, and Surveys and Mapping Branch.

RESOURCES

Resources for the latest fiscal year, pertaining to educational institutions, can be allocated by area of research as follows:

85/86

		Institutions
Energy	473,000	30
Minerals	262,000	29
Earth Sciences	625,000	87
	<hr/>	<hr/>
TOTAL	1,360,000	146

BENEFICIARIES

Beneficiaries include investigators affiliated with universities and colleges and associated research institutes, research councils, industrial research laboratories and museums.

RELATED PROGRAMS

Related programs exist within the National Sciences and Engineering Research Council (NSERC), one of three federal government granting agencies, insofar as similar-type research proposals may be funded there. Furthermore, other government departments (ie. Transport) may provide funds for activities which are somewhat related.

ASSESSMENT

The program is in support of the departmental mandate.

As with programs managed by other departments, where universities are the supplier, the peer review process may not be as stringent as it is for the granting councils.

In the study team's view, scientists within EMR are in the best position to specify what their needs are.

This process of providing grants short-circuits the DSS process. It may however, in the view of the study team, be more expedient than the DSS route.

The average grant is quite small, possibly even too small to be meaningful.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. Maintaining the status quo, but ensuring that good liaison is maintained with other departments/agencies who have similar support programs in the disciplines mentioned.
2. (Preferred) Terminating the grants program and having the required work conducted via contracts, using established contracting-out policies.
3. Transferring the program to NSERC with input from EMR to ensure that EMR's needs are met.

TARGETED RESEARCH PROGRAMS

SCIENCE SUBVENTION PROGRAM

DEPARTMENT OF FISHERIES AND OCEANS

DESCRIPTION

The Science Subvention Program (SSP) is administered by the Marine Sciences and Information Directorate of the Ocean Science and Surveys Activity, Department of Fisheries and Oceans (DFO). It is intended to provide financial support for research at universities in areas directly relevant to DFO's mandate and objectives. Current priorities include fisheries dynamics, fisheries economics, oceanography, fish health and quality of fish products.

OBJECTIVES

The objectives of the program are to utilize university expertise in support of DFO objectives (to complement DFO skills and facilities) and to encourage specialized expertise in areas of high interest to DFO.

AUTHORITY

Appropriations Act.

HISTORY

SSP was first approved in 1973 after the amalgamation of several grant programs under the newly-formed Department of the Environment. The program continued within the Department of Fisheries and Oceans upon its formation in 1979.

STRUCTURE

SSP is implemented through research agreements governed by specific terms and conditions. The departmental Science Subvention Committee administers the program in accordance with the terms and conditions approved by Treasury Board. Monies are awarded only after peer review of each application. Also, progress reviews and reports by liaison officers are important performance standards.

RESOURCES

Resources for 1985/86 for SSP are \$360,000 (A-base, 100 per cent for research grants).

BENEFICIARIES

In 1984/85, 46 applicants were awarded grants. Universities in all provinces, except Saskatchewan and Prince Edward Island, submitted a total of 91 applications for grants. The applications originated from 21 separate universities. Universities, faculty/scientists, students, and DFO all benefit from the program. Grant recipients also provide the Department with copies of published articles and manuscripts.

RELATED PROGRAMS

Related programs are supported by NSERC and also exist within DFO.

ASSESSMENT

The programs are of direct interest and benefit to DFO. These fall within the mandate of the department.

In the study team's view, the peer review process in giving awards may not be as stringent as that existing in the NSERC process. The resources provided may also negate the support of excellence strived for in NSERC's awards.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. (Preferred) Having SSP totally managed by NSERC with the appropriate resources being made available to the Council. The project selection process must have adequate input from officials at DFO.
2. Maintaining the status quo with improved liaison with related programs.

TARGETED RESEARCH PROGRAMS

VISITING FELLOWSHIPS PROGRAM

DEPARTMENT OF FISHERIES AND OCEANS

DESCRIPTION

The above program is administered by NSERC on behalf of Fisheries and Oceans. It is intended to provide promising scientists with the opportunity to work with well established research groups in their fields, and to foster close relationships between government laboratories, universities and research institutions.

OBJECTIVE

The objective of the program is to expand career opportunities for promising researchers in the natural sciences and engineering.

AUTHORITY

The Appropriations Act.

HISTORY

The Visiting Fellowship Program (VFP), administered by NSERC on behalf of 10 departments and agencies (including DFO), began in 1981. It is intended to be on a continuing basis.

STRUCTURE

NSERC receives applications, and refers these to the appropriate government departments or agencies. The latter in turn transfers funds to NSERC. Within DFO, screening procedures constitute headquarters coordinated reviews by participating laboratories. Performance standards consist of reviews by research managers and peers.

RESOURCES

Resources for 1985/86 are approximately the same as for 1984/85, namely \$441,000 (100 per cent for research grants).

BENEFICIARIES

On average, the department supports 18 doctoral graduates. DFO benefits through the work performed by these scientists, by using the program as an occasional source of recruitment of new staff, by establishing closer relations with other organizations eventually employing these participants, and by undertaking future joint projects.

Participants benefit from the experience, and by having access to modern research facilities.

RELATED PROGRAMS

NSERC operates a comparable program in other areas of scientific investigation, but none that is related to marine science and fisheries research. There is no overlap between these programs.

ASSESSMENT

The programs are of direct interest and benefit to DFO and fall within the mandate of the department.

The peer review process in giving awards may not be as stringent as that existing in the NSERC process. The resources provided may also negate the support of excellence strived for in NSERC's awards. NSERC serves as a "post office" for VFP.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. (Preferred) Having VFP totally managed by NSERC with the appropriate resources being made available to the council. The project selection process must have adequate input from officials of DFO.
2. Maintaining the status quo with improved liaison with related programs.

TARGETED RESEARCH PROGRAMS

SHIP SUPPORT TO UNIVERSITIES

DEPARTMENT OF FISHERIES AND OCEANS

DESCRIPTION

The Ship Support to Universities (SSU) Program is administered by the Marine Sciences and Information Directorate of the Ocean Science and Surveys Activity, Department of Fisheries and Oceans (DFO). It is intended to provide access to DFO vessels, for university staff and students in the ocean sciences, on a joint-venture, shared, or dedicated basis. Universities are to compete for ship time.

OBJECTIVES

The objectives of the program are to support the training of Canadian ocean scientists, facilitate the interaction of government and university ocean scientists, obtain maximum effectiveness from capital investment in ships and foster basic ocean science in Canadian universities.

AUTHORITY

Legislative authority for SSU is derived from the Appropriations Act.

HISTORY

SSU was created in 1959, when the Ocean Science and Surveys Activity was established.

STRUCTURE

Each regional office has a committee with respect to SSU which programs ship usage some time in advance of the field season. All requests for ship time are reviewed by the committee, and normally contain a detailed description of the proposed project with an assessment of expected benefits.

RESOURCES

Resources for 1985/86 are approximately \$2 million.

BENEFICIARIES

Staff and students of Canadian universities engaged in ocean science research and studies are the beneficiaries.

DFO also benefits from the mix of scientists and from the effort provided by university participants through joint projects.

RELATED PROGRAMS

With one minor exception, no other program exists to provide universities with ship time. Additionally, in most instances no alternative facilities are available. Complementary programs exist within DFO.

ASSESSMENT

The program is of direct interest and benefit to DFO and falls within its mandate.

Ship time is a necessary requirement for researchers in order to conduct meaningful studies.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. (Preferred) Continuing to make SSU ship time available to researchers, with the incremental operating costs being funded through NSERC in the form of grants to the researchers.
2. Maintaining the status quo.

TARGETED RESEARCH PROGRAMS

GRANTS TO MARINE SCIENCES RESEARCH LABORATORY OF MEMORIAL UNIVERSITY

DEPARTMENT OF FISHERIES AND OCEANS

DESCRIPTION

The grant falls under the Fisheries Research Directorate of the Atlantic Fishery Management Activity, one of six activities within the Department of Fisheries and Oceans.

OBJECTIVE

The objectives of the program are related to geographically specific needs identified by DFO in areas of fish reproduction, behaviour of fish and seals, aquaculture, physiology of marine fish and plants, salmon management and conservation, and environmental quality. The overall objective is to assist in research and experimental developments relative to DFO's mandate.

AUTHORITY

In 1981, DFO received Treasury Board approval to continue to provide a grant of \$150,000 in each of the subsequent five fiscal years to Memorial University in Newfoundland. During the 1977/78 to 1981/82 period, grants have totalled \$675,000.

HISTORY

The Memorial program began in 1977/78, and was structured in five-year terms. It is now in its second term. In effect, it is an open-ended, science resource-type program, unique to the region concerned.

STRUCTURE

The Memorial program is administered by the university, based upon annual reviews and requests. The Director General of the Fisheries Research Directorate receives an annual progress report on activities supported by the grant,

and conducts on a regular basis an evaluation of the contributions made related to DFO's objectives. Publications of scientific results are also made available.

RESOURCES

Memorial Grant - \$150,000 per year, from 1981/82 and forecast through to 1988/89.

BENEFICIARIES

The beneficiaries are the fishermen and processors that use the inshore fisheries resources in Newfoundland. The scientists and students at the university benefit by having modern facilities at Logy Bay and the resident expertise on problems unique to the region. DFO's fisheries management and environmental conservation programs, particularly those relative to inshore resources, gain from the scientific and technological research conducted at the facility. The facility also provides an important source of training and employment in Newfoundland.

RELATED PROGRAMS

Related programs currently exist within DFO (i.e. Science Subvention Program, Ship Support to Universities, Visiting Fellowships Program).

ASSESSMENT

The grants are in support of DFO's identified needs in fisheries and are in keeping with their mandate.

DFO is in the best position to determine its R&D requirements.

The link between projects supported by DFO at universities in fisheries and oceans research and other federal funding bodies such as NSERC is reasonably good.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. Retaining the program under the jurisdiction of DFO, but liaison with other federal programs in support of fisheries and oceans research should be

strengthened. This option would be most appropriate to satisfy regional needs.

2. Terminating the program, resulting in a saving to the federal government of \$150,000 plus administrative costs.
3. (Preferred) Transferring the resources to NSERC and an assurance given that DFO will have a say in project selection. The department could still contract specific projects to universities through the established DSS procurement procedure. Since the programs are administered mainly by universities, no significant administrative savings would be realized.

TARGETED RESEARCH PROGRAMS

GRANTS TO BIOLOGY STUDENTS CAPABLE OF TAKING INSTRUCTION AND WORKING IN THE FRENCH LANGUAGE

DEPARTMENT OF FISHERIES AND OCEANS

DESCRIPTION

This grant falls under the Fisheries Research Directorate of the Atlantic Fishery Management Activity, one of six activities within the Department of Fisheries and Oceans.

OBJECTIVE

The objective of the program is to enhance Francophone recruitment efforts in the Gulf and Quebec regions, where a particular need for professional fisheries biologists (with degrees in fisheries sciences) has been identified by the department.

AUTHORITY

In 1981, DFO received approval from Treasury Board to grant two undergraduate and two graduate scholarships to Francophone students in biology attending the University of Moncton. In 1983, the francophone program was expanded to provide four graduate scholarships per year, two at l'Université du Québec à Rimouski and two at Laval University.

HISTORY

The program began in 1981. Over the next decade, it is projected to involve 12 undergraduate and two graduate students at Moncton, and 32 students at the two Quebec universities.

STRUCTURE

The program involves scholarships awarded on the basis of merit, as evaluated by a university committee appointed to advise the Regional Director General, Fisheries Management, of the Gulf Region. Eligible students must make applications for these awards, and for their

renewal, and must agree to terms and conditions in a written agreement.

RESOURCES (\$000s)

	83/84	84/85	85/86
Francophone Grant	60	92	150

BENEFICIARIES

The beneficiaries are predominantly undergraduate and graduate students in the Atlantic and Quebec regions. Additionally, DFO benefits in deploying such students on a permanent or part-time basis.

RELATED PROGRAMS

No similar program exists within DFO. The program is specifically oriented to promoting francophone professionals in fisheries research. Other programs of a complementary nature are available within the department, i.e. Science Subvention Program, Ship Support to Universities, Visiting Fellowships Program.

ASSESSMENT

The grants are in support of DFO's identified needs in fisheries, and are in keeping with their mandate.

DFO is in the best position to determine its R&D requirements, as well as the need for qualified personnel in specific areas.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. Retaining the program under the jurisdiction of DFO and liaison with other federal programs in support of manpower development. This option would be most appropriate to satisfy regional needs.
2. Transferring the resources to NSERC.
3. (Preferred) Terminating the program.

TARGETED RESEARCH PROGRAMS
NATIONAL HEALTH RESEARCH AND DEVELOPMENT PROGRAM
HEALTH AND WELFARE CANADA

DESCRIPTION

The Extramural Grants program makes contributions to research projects and researchers for the purpose of providing knowledge needed by the department and by provincial health departments in order to carry out their responsibilities within the Canadian health system. About 80 per cent of the funds go to university-based projects or researchers.

OBJECTIVES

The objectives are to ensure the development of competent research personnel, and to provide information needed by the department and provinces in areas of public health or health services, within the general framework of health care organization, environmental health hazards, lifestyles, and the biology of human populations. The priorities at present are the organization and delivery of care, environmental health hazards, health promotion, rehabilitation and natives.

AUTHORITY

Department of National Health and Welfare Act, s.5(b), and Appropriations Act.

HISTORY

The program began in 1975, succeeding two predecessor programs which had their origins in the National Health Grants of 1948. Annual total contributions were approximately \$9 to \$11 million until 1982/83, and have since risen to over \$19 million. The National Health Research and Development Program (NHRDP) operates on a five-year plan. The present plan is being completed in 1985/86 and a new plan is to be presented to Cabinet in the fall of 1985.

STRUCTURE

Each application is reviewed by the department and by the government of its province of origin for its relevance

to departmental needs. If relevant, it is referred to an external peer review committee for scientific appraisal, and is classed as: a. acceptable; b. conditionally acceptable; or c. unacceptable. The directorate (with expert assistance) may work with b.-category proposals to improve their scientific acceptability if they are very highly relevant. Contributions are approved by the minister.

RESOURCES* (\$000s)

83/84	84/85	85/86
16,900	19,162	20,339

Breakdown of 1985/86 budget:

Grants and contributions	19,309
O&M	302
Salaries*	728
Person-years 1985/86:	19

* excluding employee benefits

BENEFICIARIES

In 1984/85, there were 563 contribution arrangements, accounting for \$18,123,000. The largest number went to educational institutions (394), followed by hospitals (86), other institutions (61), national organizations (21) and one to another government. The geographic distribution of 1984/85 dollar contributions was as follows:

	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
Percentage	1	0	2	1	26	46	8	1	5	9

Three-fifths of the substantial increase in funding since 1981/82 has gone to Ontario projects, awards and conferences. Alberta and B.C. submissions have also benefitted from the increases.

RELATED PROGRAMS

The terms of reference of the Medical Research Council have been closely related since 1978 when the governing legislation of the MRC removed the earlier prohibition of MRC-involvement in public health.

ASSESSMENT

In the study team's view, the objectives appear clear and appropriate. The application material is very lucid, the program follows a consultative approach normal in granting agencies and, because of its sensitivity to departmental relevance, it may seem more accessible to clients than some other grants programs do.

A major issue is whether there is overlap or confusion resulting from the similarity of its mandate to that of the MRC. The federal government's role of leadership in public health research was established in the 1940s by the department and has been characterized by close federal-provincial collaboration. The MRC, despite the recent enlargement of its mandate, has not moved into the same areas of research and does not give grants outside the medical schools to any great extent.

The administrative cost of the NHRDP is five per cent or one person-year per million dollars in grants. In view of some special features of this granting program, close attention to departmental relevance, plus willingness to help in the development of proposals if they are extremely relevant, these administrative costs are not overly high.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. Leaving the NHRDP within the Department of National Health and Welfare. This option leaves the department operating a \$20-million program which seems useful and well-targeted. There is a potential overlap with the MRC, however, if the MRC should expand its interests and its beneficiaries to include all that is possible within its mandate. If the NHRDP is left unchanged, some narrower definition could be given to the MRC.

2. (Preferred) Combining the mandate of the NHRDP within the MRC. This option should be taken if some stronger direction is given to the MRC with respect to leadership in public health and epidemiological matters, as outlined in the overview paper on research and development.

If a broader reorganization of the university research support function of the government were to take place, the role of this program should be considered in that context.

TARGETED RESEARCH PROGRAMS

NATIONAL WELFARE GRANTS

HEALTH AND WELFARE CANADA

DESCRIPTION

Two components of National Welfare Grants provide contributions for university-based research projects on social services and welfare, and fellowships to doctoral students undertaking studies in the social welfare field.

OBJECTIVES

The objectives of these two components are:

- a. to encourage research on social welfare problems in Canada; and
- b. to increase the supply of well-qualified researchers for work in government, the voluntary sector and universities.

AUTHORITY

The Appropriations Act.

HISTORY

The National Welfare Grants (NWG) program has been in operation since 1962. It was initiated to help resolve a shortage of trained personnel and an absence of research on social security and welfare problems and administration. The projects, supported through contributions, are intended broadly to provide data and knowledge useful to the policy formulation process and the social services delivery system. The program has responded to priorities derived from the field. The NWG tries to identify potential users for project results and to disseminate these to them.

Fellowships are provided to doctoral level students who are candidates for Ph.D.s in social welfare at universities in Canada and abroad. Since there is currently just one doctoral program in Canada, at the University of Toronto, over half the fellowships are held at universities in the

USA and Britain. The fellowships provide up to three years of support. Approximately 15 are awarded annually.

STRUCTURE

Applications are judged by a 12-member committee, two from inside Health and Welfare, and 10 external. The staff may then work with applicants to improve the focus, methodology or budget of the project. Contribution agreements are signed by the Minister.

RESOURCES (\$000s)

	83/84	84/85	85/86
	708.8	769.1	889.8
Person-years	1.5	1.5	1.5

In 1984/85, \$305,255 was expended on fellowships; \$465,824 went into university-based research support. The cost of administering the NWG in 1985/86 is about \$70,000, bringing the total expenditures to \$959,758.

BENEFICIARIES

Approximately 15 to 20 projects undertaken by university researchers, mostly in the social sciences, receive support annually. Up to 15 doctoral candidates obtain fellowship support each year.

RELATED PROGRAMS

The support NWG provides university researchers and Ph.D. students closely resembles that given by the Social Sciences and Humanities Research Council (SSHRC).

ASSESSMENT

In the study team's view, the NWG is not closely tied to departmental priorities; in this regard it more closely resembles the programs of the SSHRC than the research support programs of other departments. No assessment has been made of the direct utility of the research to Health and Welfare, but within the department there is some feeling it should be more closely tied to departmental needs. With its small budget it is more concerned with maintaining a basic level of research activity in the social welfare area.

The fellowship component directly duplicates the Doctoral Fellowship program of the SSHRC, including the provision for studying outside Canada. The SSHRC spends more than \$10 million annually supporting Ph.D. students.

There is no regular procedure for ensuring that researchers and students do not receive duplicate support from NWG and SSHRC. There is a strong possibility of overlap and confusion between the two in the eyes of applicants, and in the minds of those administering the programs.

The research and fellowships support provided by NWG clearly duplicates that given by SSHRC. The issue to be resolved is whether the targeting of support through NWG increased the value-added sufficiently to make the duplication worthwhile.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. Maintaining the status quo. This would not resolve the problem of duplication with SSHRC and would not bring the program's operations closer to the priorities established by Health and Welfare. It would remain difficult to assess the contribution of the NWG because of the support given for research and to students from other sources.
2. Targeting the NWG more closely to the priorities of Health and Welfare. This would probably reduce duplication of effort with SSHRC which would withdraw from targeted research support in the area. Additional steps would have to be taken to prevent duplication. This option would probably have a greater effect on the research supported than on the fellowships.
3. (Preferred) Having the NWG cease to support research and graduate students. The SSHRC would be charged with providing such targeted support in consultation with Health and Welfare. This would eliminate the possibility of duplicate federal support in the area, while giving the department a

voice in the funding of research and graduate student support. There would be no confusion as to the appropriate source for funding federally and it would be easier to attribute success, or failure, to the funding source. The economies of scale should allow SSHRC to administer such additional support with less than one person-year resulting in a net saving in personnel. The transfer of responsibility could be accomplished by either of the options presented in the theme paper on research.

TARGETED RESEARCH PROGRAMS
NORTHERN SCIENTIFIC TRAINING GRANTS PROGRAM
INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

DESCRIPTION

The Program encourages Canadian universities to develop multi-disciplinary approaches to northern studies. Presently, 27 universities are involved in northern research. Between 1962 and 1984, a total of \$7,045,840 was allocated to university training.

Criteria for selection of projects to be funded are as follows:

1. completeness and clarity;
2. number of students supported by training funds in the previous year and proposed for the upcoming year;
3. extent to which the application fits within the Program's guidelines; and
4. evaluation of past-performance and up-coming plans.

An interdepartmental committee, consisting of representatives from federal departments with interests in northern research and the Association of Canadian Universities for Northern Studies (ACUNS), reviews all applications and makes granting decisions.

In 1985/86, 27 universities requested \$1,286,361 in support of 402 students. Final allocations among the 27 universities totalled \$825,000. Of the projects funded, 41.1 per cent were in the field of life sciences, 32.1 per cent in the physical sciences and 26.3 per cent in the social sciences.

A first bibliography of scientific papers, seminar or conference presentations, theses, etc. has been produced for the activities supported in 1983.

OBJECTIVE

The objective of the Northern Scientific Training Grants Program is to increase the number and skills of graduate and other advanced students in Canadian

universities who have specialized in various scientific fields of Northern studies.

AUTHORITY

Department of Indian Affairs and Northern Development Act.

HISTORY

The NSTG program originated in 1961 in response to two needs; insufficient numbers of northern specialists; and insufficient interest in northern research.

STRUCTURE

The program is administered by the University Affairs Section of the Office of Northern Research and Science Advisor which is part of the Northern Policy and Coordination Branch. An interdepartmental committee reviews all applications and makes granting decisions.

RESOURCES

The total grants budget in 1985 was \$825,000.

BENEFICIARIES

Graduate students in Canadian universities and universities that are members of the ACUNS are beneficiaries.

RELATED PROGRAMS

Northern Scientific Resource Centres Program (DIAND)
Arctic Land Use Research Program (DIAND)
Northern Oil and Gas Action Plan (DIAND)
Environmental Studies Revolving Fund (DIAND)

ASSESSMENT

To the study team, it would appear that the program is structured in such a manner as to promote a membership concept amongst participating universities.

The selection committee overwhelmingly represents government interests. Native people and representatives of the private sector are not involved.

There does not appear to be any formal system of making the results of the projects public, other than the above first bibliography of projects supported in 1983.

The stated criteria upon which project selection is based do not identify the potential contribution to or impact on promoting understanding of the North.

An earlier assessment of the program by the Auditor General noted that the activities of the program are carried out largely on the basis of informal traditions and roles and that the criteria for guiding the program and making decisions (especially granting decisions) within it should be stated more clearly. This assessment is endorsed by the study team.

OPTIONS

The study team recommends to the Task Force that the government consider:

1. Expanding the selection committee beyond the involvement of those who are the recipients of grants. In the case of northern research, Native peoples should be represented. Private sector involvement in priority-setting granting decisions should be developed.
2. An objective that restricts itself to stimulating research interest and gives no indication of the relevance of the results and their impact is of limited value. The program's objective(s) should be stated in a manner that gives some direction in terms of the nature of research and its expected contribution to the enhancement of knowledge of the northern environment.

TARGETED RESEARCH PROGRAMS
GRANTS AND CONTRACTS FOR UNIVERSITIES
NATIONAL RESEARCH COUNCIL OF CANADA

DESCRIPTION

The National Research Council (NRC) provides an operating and maintenance grant of \$26.7 million (1985/86) to the tri-university meson facility, (TRIUMF) located on the campus of the University of British Columbia and operated as a corporation by the University of Victoria, the University of Alberta, Simon Fraser University, and the University of British Columbia. In addition, physicists from other Canadian Universities use the facility for research without paying for the use of the beam from the particle accelerator.

Other countries send physicists to use the unique TRIUMF facility, and they in turn allow Canadians to use their particle accelerators without charges for the use of the beam.

NRC also makes a contribution of \$2.4 million (1985/86) for the Canada-France-Hawaii Telescope (CFHT), located on Mount Mona Kea in Hawaii, for use by astronomers from Canada and elsewhere.

Both of these facilities (CFHT and TRIUMF) are about one-decade old and can still be considered to be world class research facilities.

NRC also contracts directly with universities for about \$5 million per year for research in support of its own mandate and needs, although in the last year this has been halved.

The NRC intramural research program at some \$304 million (1984/85) is by far the largest part of its budget. It does not come directly under the mandate of this study team. It was reviewed by the Wright Task Force on Federal Policies and Programs for Technology Development in 1984, which concluded that a reorganization of NRC and the other government laboratories is needed to make its intramural R&D more cost effective and useful.

OBJECTIVES

The general objectives of CFHT and TRIUMF are to promote the development of new knowledge in astronomy and particle physics respectively, and to provide an opportunity for Canadian universities to train students in these areas.

The contracts, let by NRC to universities for specific expertise to support NRC's intramural research program, were to a large extent related to NRC's role in renewable energy prior to 1985.

RESOURCES (\$000s)

	84/85	85/86
CFHT	2,200	2,400
TRIUMF	25,500	26,700
Contracts	5,400	2,500
TOTAL	33,100	31,600

BENEFICIARIES

The recipients are almost all Canadian universities, faculties, students, or the jointly owned corporations set up by the universities to operate the specific facilities.

RELATED PROGRAMS

Researchers using CFHT and TRIUMF also apply to NSERC for funds for operating costs, travel, maintenance and special equipment for their experiments which are built up around these facilities. NSERC peer committees typically provide a further \$6 million per year for this research. Another group of physicists has applied to NSERC for funds for a neutrino observatory which would be a world class research facility in another area of particle physics.

ASSESSMENT

In the view of the study team, the money allocated to the Canada-France-Hawaii Telescope (CFHT) seems adequate for the present purposes and is providing Canadian astronomers access to a world-class facility at a very reasonable cost (\$2.4 million).

If Canada is to attain recognition for R&D in astronomy, additional equipment at CFHT, and support money for additional Canadian resident astronomers would be required. At present, the rates of publications from Canadians working at CFHT has been below average.

The money allocated to the tri-university meson facility (TRIUMF) has been used effectively to create a world class centre of excellence, used both by Canadians and physicists from other countries. In turn other countries have allowed Canadian physicists access to other particle accelerators at no cost for the use of the beam. Thus, the \$26.7 million provided to TRIUMF has generated significant other benefits to the Canadian physics community and could be thought of as "dues" to allow free access to other particle accelerators. Other researchers using the Canadian facility have donated equipment to the facility at the end of their own research.

The high technology community developing in British Columbia has also benefitted from TRIUMF, by receiving contracts for equipment and services to the project. Some of these companies have been able to develop export markets for their products and services.

Many Ph.D. students in physics and professors of physics from all across Canada have had an opportunity to use TRIUMF in their research. Technicians and engineers have also had an opportunity to be trained at TRIUMF.

In the study team's opinion, no research of practical value can be expected to be derived from either TRIUMF or CFHT in the short or medium term. These endeavours can only be thought of as research for the role of advancement of knowledge, a goal which cannot be quantified readily.

The TRIUMF organizational structure forms a good model for inter-university cooperation and coordination with the appropriate granting council (NSERC) in this case. Other capital intensive university research programs (e.g. super computers) could also benefit from this type of organizational structure.

The cancer treatment being offered using the TRIUMF facility is highly experimental and may not lead to a useful clinical procedure at a reasonable cost in the foreseeable future.

NRC also contracts out \$2.5 million of its research needs to universities, and this activity seems to be both cost effective and extremely worthwhile. These contracts provide universities with money for direct and indirect costs and equipment, and afford the universities a greater opportunity to train researchers. During the recent cutback in NRC's budget, the money for contracts was cut in half. The contracts in most government departments are the first item to be cut when a budget constraint is imposed, leaving intramural research untouched.

OPTIONS

A. TRIUMF

The study team recommends to the Task Force that the government consider the following:

1. The present grant could be discontinued or phased out. However, if this were done, Canadian expertise in theoretical physics would deteriorate. Ph.D. students in physics would have to go to other countries for some types of research. Canada would have to pay for the use of foreign particle accelerators in the absence of a Canadian accelerator to which foreign physicists have access. A portion of the \$26.7 million spent at TRIUMF could probably be saved under this option.
2. The present grant could be discontinued or phased out and Canada could pay a contribution to CERN (European Laboratory for Particle Physics) or another foreign particle accelerator to enable Canadian physicists to have access to a particle accelerator. This option would not be significantly cheaper than the present practice of maintaining TRIUMF at \$26.7 million per year, and has the further disadvantage that Canadian physicists would have to go to foreign countries for training and research.
3. The present grant could be increased over the next five years to update TRIUMF, which has developed a proposal to maintain the facility as a world-class centre of excellence in particle physics. This option will cost in the order of \$300 million

(1985 basis) over the next three years for capital expansion and approximately \$80 million per year thereafter to operate.

4. (Preferred) The present grant could be continued at the current level with adjustments for inflation. However, TRIUMF is already 11 years old, and will soon no longer be a world-class facility if funding is only maintained at this level. Eventually, Canada's position in physics research would deteriorate. Therefore, serious attention should be given to keeping a Canadian presence in world-class particle physics research by funding the Sudbury neutrino observatory. This has been estimated to cost approximately \$11 million (1985 basis) in capital (exclusive of the \$200 million heavy water inventory) and \$1 million per year in operating expenses. This would be a world-class research facility aimed at developing a better understanding of the fusion energy processes taking place in the sun, and as such, would attract physicists from around the world.

B. CFHT

1. The present grant could be cut or phased out, which would lead to general deterioration of astronomical research in Canada, probably driving researchers in the field to other countries.
2. The present grant could be increased to give Canada a greater presence in the field of research in astronomy. However, there are no real economic incentives to do this since this research is purely for the advancement of knowledge.
3. (Preferred) The present grant of \$2.4 million could be maintained with adjustment for inflation. This seems to be an appropriate amount for research of this nature.

C. NRC CONTRACTS

1. Efforts should be made to have NRC contract-out more research needs to universities and the private sector. The poor track record of the existing NRC intramural research was discussed at length in the Wright report which reviewed

government intramural research. NRC could develop a plan to contract-out all of its "industrial" research over a period of five years. There is no apparent justification for doing industrial research in a government laboratory since this only leads to technology transfer problems. This work could be contracted-out to the private sector, or to universities if there is no private sector contractor available. Under this option, a portion of the \$300 million intramural research budget at NRC could be saved by transferring the work to the private or university sector, which could be encouraged to cost share in projects in return for the rights to exploit the results of the R&D.

2. The entire NRC intramural program could be subjected to a review by independent private management consultants as suggested in the Wright report. By this means, some savings will likely be identified through improved management, and by transferring some of the R&D to universities or the private sector. NRC is addressing some of these issues in its new five-year plan.

TARGETED RESEARCH PROGRAMS
BORA LASKIN NATIONAL FELLOWSHIP
SECRETARY OF STATE

DESCRIPTION

The Bora Laskin National Fellowship in human rights research was established to encourage multi- or inter-disciplinary research on themes and issues relevant to human rights. Research may be centered in the arts, humanities, social sciences, journalism and law.

OBJECTIVE

The fellowship is to encourage research or the development of expertise in human rights.

AUTHORITY

The Appropriations Act.

HISTORY

The fellowship was established in 1984 to commemorate the work on human rights of the late Chief Justice Bora Laskin. The first fellowship was awarded in 1984/85 to Professor Douglas Saunders, Faculty of Law, UBC.

STRUCTURE

The fellowship is administered by the Social Sciences and Humanities Research Council (SSHRC) on behalf of the Secretary of State. Awards are made after an annual national competition adjudicated by a selection committee. Payments of the research stipend are made in two instalments at six-month intervals. Travel expenses, based on Treasury Board directives, are paid directly by the SSHRC and reimbursed to the Council by the Secretary of State. The cost of translation and publication of research reports will also be borne by the Secretary of State. The fellowships are not renewable.

RESOURCES

The funds necessary for the fellowships are drawn from the grants and contribution budget of the Human Rights

Directorate, Secretary of State. Travel expenses come from the directorate's travel budget. The SSHRC is paid an administration fee to run the annual competition. The maximum required is currently in the order of \$65,000 per year, with added costs in future years for translating and publishing the research reports.

BENEFICIARIES

Academic researchers who are citizens or permanent residents of Canada.

RELATED PROGRAMS

The SSHRC and the Department of Justice support research in the general field of law. Major fellowship support is provided by the Killam Program of the Canada Council, for research in all fields.

ASSESSMENT

Since the Bora Laskin Fellowship comes from the general operating revenues of the Human Rights Directorate, its future is subject to fluctuations in the appropriation for the directorate, which may not be based on considerations at all related to the effectiveness of the fellowship. The SSHRC is charging a percentage administration fee which may also make the fellowship less attractive to Secretary of State in the future. In the view of the study team, with all the other activities in human rights research, it will be difficult to measure the impact of the Bora Laskin Fellowship.

OPTIONS

The study team recommends to the Task Force that the government consider that, to ensure the continued existence of the Bora Laskin Fellowship, sufficient funds should be permanently transferred to the budget of the SSHRC and the SSHRC be directed to award a fellowship annually.

TARGETED RESEARCH PROGRAMS

CHAIRS OF WOMEN'S STUDIES

SECRETARY OF STATE

DESCRIPTION

The program provides endowment support to five chairs at Canadian universities for research on women's issues to highlight the contribution of women to Canadian society and the world. Each chair will receive \$500,000 to support its activities for five years; the host university also agrees to furnish a contribution towards the chair's operation.

OBJECTIVES

The objectives of the program are to support focal points for women's studies in each of Canada's five regions and to provide greater educational opportunities to women.

AUTHORITY

The Appropriations Act.

HISTORY

Established by Cabinet Decision in 1983, the Chairs of Women's Studies Program (CWS) was a departure for the Women's Program, an office concerned with supporting women's organizations working to improve the status of women in Canada. There was no mechanism in place, therefore, to handle requests for university research support and the announcement of the first chair at Mount St. Vincent, before applications had been invited, was criticized by women's groups and universities, even while they supported the aims of the CWS.

The establishment of a selection committee regularized the situation and gave the CWS needed advice on the current state of feminist research. All the universities in British Columbia applied to the CWS, an unexpectedly vigorous response; Simon Fraser University obtained the chair. Each of the joint proposals made by the universities in Winnipeg and Ottawa were successful in the Prairie and Ontario regions. They typify the inter-disciplinary and inter-institutional approach to research encouraged by the program.

Following a precedent established by other Secretary of State programs, such as Centres of Specialization, the Quebec chair has been selected by an advisory committee established by the Quebec government. The Quebec recommendation has yet to be confirmed by the Secretary of State.

The CWS has a mandate, through the contribution agreements establishing each chair, to monitor the activities undertaken for a period of five years to ensure they conform to those proposed in the individual applications. There are no current provisions to extend the program to provide support to further chairs, or other research activities, and CWS's role will, therefore, shift to compliance monitoring.

STRUCTURE

The CWS is run by the Women's Program at the Department of the Secretary of State. The initial chair was awarded without going through a review process within the program, but subsequent pressure from women's groups led the CWS to establish a review committee to judge the quality of the proposals and their relevance to feminist research. The committee's recommendations were instrumental in the decisions on the B.C., Prairies and Ontario chairs. The chair for Quebec is being recommended by an advisory committee of the provincial government.

Contribution agreements, negotiated with each university, set out general performance criteria and bind the university to a minimum level of support to the chair's activities.

RESOURCES (\$000s)

	83/84	84/85	85/86
TOTAL	500	1,500	500
Person-years	1	1	0.5

BENEFICIARIES

A total of seven universities (two chairs are held jointly) will receive endowment support from the CWS program.

RELATED PROGRAMS

The Canadian Advisory Council on the Status of Women has a major research program on women's issues carried out in house or by contract. The Social Sciences and Humanities Research Council (SSHRC) has a targeted research program on Women and Work which provided \$650,000 in research grants in 1984/85. There was no consultation with these councils prior to the decision to establish the CWS.

ASSESSMENT

The program's sudden introduction left no time for discussions with the provinces, universities and other federal agencies working in the area of women's studies. This led to resentment in some quarters when the first chair was awarded without competition. Quebec insisted on running its own evaluation process. In the view of the study team, the CWS has not operated equitably in all regions of Canada.

Since the Women's Program had not been established to deal with advanced scholarly research applications, it was difficult for the staff to design, and even partially implement, an appropriate evaluation system. Since the CWS is only a small portion of the Women's Program, these difficulties will not be overcome.

It is the opinion of the study team that with the awarding of the Quebec chair the main job of the CWS will come to an end. At issue is whether a continuation of the CWS would be the most effective means of meeting such a need. A more appropriate approach might be to centralize activities for research support with the SSHRC, which has well-developed evaluation systems and can meet the concerns of the provinces and universities that choice will be based on quality.

Because interested women's groups were unable to raise matching funds to help endow the chairs, the CWS provided the entire funding required. This departs substantially from the model provided by the Multiculturalism Sector's Chairs for Ethnic Studies.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. CWS should cease operations as planned.
2. If additional investment in women's studies infrastructure at universities is required, the SSHRC should be directed to operate such a program in conjunction with its existing "Women and Work" theme, in consultation with the provinces.

TARGETED RESEARCH PROGRAMS
CENTRES OF SPECIALIZATION FUND
SECRETARY OF STATE

DESCRIPTION

The Centres of Specialization Fund (CSF) is a special fund of up to \$25 million, established by the Canadian government and administered by the Department of the Secretary of State to fund initiatives to help Canadian universities become more actively involved in areas where Canada needs advanced research and highly skilled manpower to enable it to successfully meet social, economic and technological challenges.

The CSF is intended to complement the research councils' support programs, with special attention being given to proposals in applied interdisciplinary research which call on the combined resources of governments, universities, and industries.

Contributions are available for the following purposes:

- endowment of chairs of studies on a matching basis;
- capital costs (construction or major equipment purchase); and
- operating costs (overhead, other equipment) associated with the establishment or expansion of a centre and not with the institution's regular activities.

OBJECTIVE

To assist universities in creating new capacity or improving existing strengths in research and human resource development, especially in areas related to the interests and responsibilities of the Government of Canada.

AUTHORITY

Appropriations Act.

HISTORY

On April 5, 1984, the Secretary of State wrote to provincial Ministers of Education and university presidents

to announce the establishment of the CSF and to invite institutions to submit proposals by June 30, 1984. Universities submitted 200 projects for consideration.

The program expired March 31, 1985. However, contribution payments will continue to be made until March 31, 1987.

A total of 44 projects were funded in 36 institutions, including 18 endowments for chairs of study. Most of the remaining funds were awarded for capital costs, and a small number of awards were made for operating costs.

Projects funded were about evenly divided between the humanities, social sciences and natural sciences.

STRUCTURE

Proposals were assessed by a departmental review committee using expert advice from other federal departments and agencies as well as other outside consultants. Provinces were kept informed of project applications through bureaucratic channels and their views were transmitted to the Secretary of State. The review committee presented recommendations to the Secretary of State for approval.

RESOURCES

Of the total \$25 million available in the fund, \$22,575,000 was awarded through contribution agreements and \$425,000 was spent on program administration. Following Treasury Board approval, the remaining \$2 million was allocated to Horizon Canada, a project involving publication in both English and French of a 120-issue magazine on the history of Canada, produced by the Centre for Study of Teaching Canada Inc. and distributed to the general public through subscriptions and on newsstands.

Contribution funds are available as follows:

(\$000s)	83/84	84/85	85/86	86/87
	30	10,233	12,312	2,000
PYs	2	5	1	-

BENEFICIARIES

Universities and other specialized post-secondary education institutions, with the exception of CEGEPs and community colleges, were eligible for contributions. A total of 36 institutions across Canada received funding under the program.

RELATED PROGRAMS

The programs of the Social Sciences and Humanities Research Council (SSHRC), the National Sciences and Engineering Research Council (NSERC), the Medical Research Council (MRC), the Canadian Ethnic Studies Program under the Multiculturalism Program (SOS), Women's Chairs of Studies (SOS), as well as specialized grants and contributions programs of various departments, are related.

ASSESSMENT

As most projects are not yet finalized, it is not possible at this time to comment on the CFS's degree of success in meeting its objectives.

While departmental officials have indicated that, with the exception of Quebec, no criticism or displeasure was made known in writing to the Secretary of State by the university sector or the provinces during its round of provincial consultations, the study team encountered serious concerns on the part of some provinces with respect to the CSF.

The Quebec situation became particularly acute in August 1984, when the institutions initially refused to accept the awards made by the Secretary of State because the priority list presented in agreement with the provincial government had not been adhered to. The issue was resolved when, in October 1984, the new Secretary of State accepted the priorities as suggested by the Quebec institutions.

Strong criticism of the program and its selection process was also voiced by the Association of Universities and Colleges of Canada, the Canadian Association of University Teachers and the Social Science Federation of Canada with respect to the selection mechanism and the projects funded.

The CFS made it possible to fund a number of multidisciplinary projects which did not fit within existing funding mechanisms, such as the Asia Pacific Business Centre, as well as other initiatives, such as projects to provide services to hearing-impaired students, for which no source of funds was available. In addition, funding of endowments for chairs of study on a matching fund basis in most cases is expected to generate an additional \$7 million from other sources.

SSHRC's Five-Year Plan for financing research in the Social Sciences and Humanities for 1985-90 indicates that the council would have considered funding a number of these activities if funds had been available.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. The program, which is now terminated should not be re-activated.
2. In view of the potential disruption in provincial priorities and strategies associated with such a sudden federal intervention at the post-secondary level and the strong criticism expressed by both the post-secondary community and the provincial governments, it would be preferable in future for any similar injection of funds to be routed through the appropriate granting council.

TARGETED RESEARCH PROGRAMS
RESEARCH PROGRAM
SOLICITOR GENERAL OF CANADA

DESCRIPTION

The Research Program provides long-term sustaining support to criminology centres at seven Canadian universities and gives small contributions to researchers in criminology to help them develop their research projects.

OBJECTIVES

Its objectives are:

- a. to encourage criminological research;
- b. to attract and maintain expert researchers and develop new research manpower; and
- c. to encourage the publication and dissemination of research findings.

AUTHORITY

Appropriations Act

HISTORY

The Criminology Research Centres Support Program began in 1969 as small contributions to the infrastructure of the centres to allow them to maintain a central administration. Funds are provided on a matching basis up to a maximum established for each centre by the program; the external funds may not include research sponsored by the Solicitor General or other federal agencies such as the Social Sciences and Humanities Research Council (SSHRC). The funds devoted to the centre by the university count towards matching the department's contribution. The university must use 30 per cent of the contribution for the development of research manpower. Centres now exist in all regions of the country; a seventh was founded at Dalhousie University to act as a focal point of criminology research in the Atlantic Region. Recently an eighth received funding at the University of Manitoba.

Another recent development was the creation in 1984 of a contribution fund for independent proposals. Small amounts of money are awarded in an annual competition to allow researchers to plan major research undertakings. The purpose was to give good ideas a place to germinate and help the department stay in closer touch with new areas of research; it was found that total reliance on the centres narrowed the department's perspective.

STRUCTURE

The criminology research centres receive three years of support between reviews, contingent on their ability to attract matching funds. Each centre is also asked to carry out one major research project on a topic agreed upon by the department and the centre. The contribution agreement, which is approved by the minister, and signed by an assistant deputy solicitor general, includes additional terms and conditions, including an allocation of 30 per cent of the funds to manpower development. Payments are made quarterly, provided proper financial reports are made by the centre. The centres must also provide copies of reports on all research projects and conferences. No provision is made in the contribution agreement for increases to cover inflation.

The fund to support independent research is allocated in an annual competition, providing maximum funding per project of \$10,000; support is not renewable. Applications are judged by a committee of research-centre directors and ministry officials; they give priority to projects of importance to federal departments in the area. A "blind" review process, in which the applicant's identity is concealed, is used to avoid problems caused by the small number of criminology researchers in Canada. Contribution agreements approved by the assistant deputy solicitor general are signed by the director of research.

RESOURCES (\$000s)

	83/84	84/85	85/86
Centres	400	400	400
Research	-	120	120
Administration	35	60	60
TOTAL	435	580	580
PYs	0.5	0.75	0.75

BENEFICIARIES

Centres support is given to eight universities: Simon Fraser; Toronto; Regina; Ottawa; Montreal; Alberta; Manitoba; and Dalhousie. Sixteen contributions were awarded to independent projects by academic researchers in 1984.

RELATED PROGRAMS

Transport Canada provides similar support to research centres for transport research through its Transport University Program, but does not require matching funds. Support of small criminology research projects is also given by the SSHRC.

ASSESSMENT

In the study team's view, the program has clearly identified objectives and has tailored its support to meet them. It is too early to tell whether the independent research contributions will be effective in encouraging a broader range of researchers to undertake criminological studies. Given the small amount allowed for each contribution, in comparison to that provided by the SSHRC, this part of the program is unlikely to have any major impact.

There has been no formal review of the centres support to determine whether there is a continuing need to provide sustaining support. The fact that universities are able to find matching funds, often from the private sector, suggests such a need exists. This component does not duplicate other federal support of university research.

Although the research programs do not provide support for specific items also supported by SSHRC, there is clearly a duplication of funding for criminology research. The question is whether there is a continued need for the special infrastructure provided by support to centres and for pilot funding of research projects.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Continue the research programs, but this option would mean maintaining activities which have not been formally evaluated. Support for criminology research centres has been available for 16 years. At a minimum there should be a formal review of support to the centres to determine whether continued support is justified on the basis of future need and past performance.
2. Turn the total responsibility for funding criminology research to SSHRC. This would require a directive to SSHRC to coordinate its support of such research with the Solicitor General and Department of Justice. Were SSHRC to take over the support of centres -- as suggested in its five-year plan -- the council would require additional resources designated for the purpose. An advantage of such an approach is the removal of multiple sources of funding for criminology research. Savings in person-years and costs would be minimal. This option could be handled by either of the methods laid out in the research theme paper.
3. (Preferred) Terminate the program. Since contribution agreements have been signed covering three years of funding, the research centres would continue through 1986/87. Research funding of independent projects could cease immediately. Research required by the Solicitor General could be contracted for.

TARGETED RESEARCH PROGRAMS
TRANSPORT UNIVERSITY PROGRAM
TRANSPORT CANADA

DESCRIPTION

The Transport University Program (TUP) consists of:

- a. annual sustaining grants to transportation research centres operating at universities in each of Canada's major regions;
- b. fellowships to support graduate students undertaking transportation studies and research; and
- c. negotiated research contributions for selected university research projects of importance to the Canadian transportation sector.

OBJECTIVES

The objectives of TUP are:

- a. to create and sustain the infrastructure necessary at Canadian research institutions to allow an effective response to the needs of transport carriers, users and governments;
- b. to encourage an adequate flow of graduate students to meet the demands of the private and public sectors and universities for qualified personnel; and
- c. to motivate researchers at Canadian universities to devote a major part of their research effort to the study of transport in Canada.

AUTHORITY

The Appropriations Act.

HISTORY

The TUP was established in 1968/69 to alleviate a perceived lack of transport research and a shortage of

qualified professionals to meet the needs of governments and industry. It was created by the Canadian Transport Commission, and transferred to Transport Canada during the late 1970s. The program concentrates on policy, social and economic research. It excludes technical studies on vehicle or infrastructure design and development.

University transportation research centres receiving sustaining grants are located at the following universities: Dalhousie, New Brunswick, Montreal, Toronto/York, Manitoba and British Columbia. The Traffic and Transportation Institute also receives base support from TUP. The sustaining grants are meant to provide for a full-time director, plus administrative support.

The fellowships component was introduced to help ensure an adequate supply of trained personnel qualified to do research in the transport field. Both masters- and doctoral-level students are supported at Canadian universities.

Negotiated research contributions support research in the transport field which are of general interest, but which would not be undertaken by other private or public organizations for their own purposes. They are principally directed to faculty at the 11 Canadian universities which have expertise in transport research.

Budget constraints within Transport Canada have led to the cancellation of TUP to take effect at the end of 1985/86.

STRUCTURE

The transportation research centres receive annual sustaining grants, not subject to review. The fellowships and negotiated research contributions are subject to an in-house review. The decision on funding is delegated to the Director General, Planning and Policy. The program is within the Planning and Policy Branch because the research and students supported tend to be in the socio-economic, policy-formulation sector, rather than the technical. Negotiated research contributions are directed towards projects undertaken at transportation research centres.

RESOURCES (\$000s)

For 1984/85 and 1985/86 TUP has received supplementary support of \$800,000 per year. This has given the following budget breakdown for the past three years:

	83/84	84/85	85/86
Centres	518	900	900
Contributions	386	700	700
Fellowships	272	400	400
TOTAL	1,176	2,000	2,000
PYs	1.5	1.5	1.5

BENEFICIARIES

Six transportation research centres attached to Canadian universities and two institutes obtain sustaining grants. From 1978 to 1984 a total of 56 fellowships were awarded to Ph.D. students, and 137 to students at the master's level. Over the period 1975 to 1984, 143 negotiated research contributions were made to research projects, concentrated at eight Canadian universities which have centres dedicated to transportation research.

RELATED PROGRAMS

Support for graduate students and researchers on topics in transport may also be found from the Social Sciences and Humanities Research Council (SSHRC) and the Natural Sciences and Engineering Research Council (NSERC). A similar support of research centres exists at Solicitor General for criminological research.

ASSESSMENT

A recent evaluation of TUP pointed out that the duplication of its activities with those of SSHRC and NSERC makes it difficult to judge the success of the program in meeting its objectives. Nevertheless, the evaluation recommended that:

- centres be made more fully accountable to ensure full value for money;
- research objectives should give greater stress to university, government and industry collaboration;

- more effort should be put into the dissemination of results; and
- greater emphasis should be placed on industry fellowships.

One-quarter of the graduates supported by TUP accepted work outside the transport sector because of a lack of jobs within it.

TUP is being phased out by Transport Canada because the research supported was not seen as closely enough tied to the department's work, no matter how valuable the findings might generally be. Transport does not see it as part of its basic role to ensure a supply of researchers in their sector. The centres, rarely subject to review and under no obligation to work with ministry officials in defining research priorities, have become irrelevant to the department's policy mechanisms.

In the absence of any particular mandate to support research, Transport found TUP a luxury it could no longer afford. There are currently discussions being held with SSHRC and NSERC to determine whether these agencies can handle some portion of the university research support which TUP will no longer support after 1985/86. Transport will continue to support research through contracts when it is considered essential.

There is no question of re-establishing TUP within Transport Canada. In the study team's view, the principle of shifting research responsibilities to an organization charged with that mission, therefore, becomes important. Shifts in departmental priorities can have a devastating effect on universities who rely on their support to maintain specialized research and training activities. In the opinion of the study team, a mechanism allowing direction of targeted research by interested ministries and agencies is necessary. The greater emphasis on multidisciplinary research this would create, suggests a single body with the federal mandate to support research at universities.

OPTIONS

The study team recommends to the Task Force that the government consider allowing TUP to fold, as Transport Canada plans. Since TUP is being eliminated by Transport Canada at the end of 1985/86, options for the program are

limited. It can be allowed to disappear completely or the granting councils could be charged with giving priority to research in the area, in consultation with Transport Canada and the Canadian Transport Commission. The latter has expressed concern that the loss of funding will destroy a valuable source of expertise for their policy studies. In the absence of any clear evidence that transport research at universities will be harmed by the ending of TUP, and in light of the findings of the evaluation study, the program seems to have outlived its usefulness. This would leave Transport Canada free to continue its discussions with the granting councils, as it intends.

NATIVE EDUCATION

OVERVIEW

INTRODUCTION

Direct expenditures in the area of Indian education will amount to approximately \$600 million in 1985/86.

Education remains central to all efforts to enable Indians to acquire the capacities that are essential if they are to attain both prosperity and cultural survival.

A major obstacle to increasing the capacity of the Indian population to survive and thrive within the Canadian context is the deeply-rooted sense of dependency on the federal government. Such a sense is reinforced in each instance when government acts in a manner that limits the Indians' authority to act on their own behalf. The study team, in formulating its proposals, has attempted to break from this traditional and continuing behaviour by ensuring that the Indian communities are provided with the opportunity to develop, on their own behalf, a high quality of education in a responsible fashion.

Efforts of the government and Indian leaders over the past decade or so have, to a significant extent, been devoted to reaching a broad understanding of the manner in which education can best be delivered. Documentation recording these efforts indicates the difficulties involved in trying simultaneously to satisfy federal government concerns, constitutional requirements and the aspirations of the Indian people.

INDIAN CONTROL

Currently there would appear to be consensus between the Indian leaders and the government that the most effective organizational model is one that calls for the government to withdraw from the direct management of Indian education programs as rapidly as possible.

There appears, however, to be a significantly different perspective between those who are the managers of the Department of Indian Affairs and Northern Development's (DIAND) education program and Indian leaders concerning the framework in which the government's role is to change. Indian leaders forcefully express their desire to be allowed

to choose between the educational options open to them. Departmental officials on the other hand appear to have committed themselves to band-controlled (i.e. band-operated) schools.

Currently more than 50 per cent of Indian students attend provincial schools and several provinces anticipate continuing growth in this direction. Many Indian leaders recognize the superiority of the provincial educational systems and view closer cooperation with the local school districts and departments of education as an important option. This is substantiated by the observations of provincial officials. DIAND sources clearly indicate that from an education perspective, quality and cost-effectiveness are best achieved through increased cooperation with local provincial schools and districts.

POST-SECONDARY EDUCATION

Academic upgrading and basic skills development are of more importance than post-secondary programs to an Indian population which must cope with critical levels of unemployment and the crises of cultures under stress.

In the study team's view, while Indian students with the appropriate academic qualifications and motivation to acquire a post-secondary education should continue to be supported, a greatly increased emphasis is required at the level of literacy training and basic adult education.

A lack of innovation on the part of DIAND and the lack of flexibility and coordination among DIAND, CEIC and the provinces appears to contribute to the continuing literacy and self-sufficiency problems that limit opportunities for Indians.

PRINCIPLES

In reviewing programs related to the delivery of Indian education, the study team developed the following principles:

- a. While the constitution clearly identifies a special responsibility of the federal government for Indian people, this need not imply the creation of funding programs whose resource levels are significantly different to those offered to the Canadian population at large.

- b. Where specific groups of Indians have unique and identifiable needs, special funding should be available to them as it would be for other "special need" groups.
- c. Indians should qualify for government programs on the same basis and conditions as those offered to all Canadians.
- d. Indian students should have available to them resources that are the equivalent of those available to Canadians in similar situations.
- e. While specific needs may require the funding of special colleges and institutions, support to the individual students attending them should be in a manner consistent with that available to all Canadian students.

CONCLUSION

The study team strongly endorses the principle of Indian control of education and the changes in managerial style and objectives that will be required on the part of the federal government to bring this about.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

- 1. The management of Indian education should become the mandate of an Indian education council reporting to Parliament through the minister, but operating independently of the department's bureaucracy.

The creation of such a council, described more fully in the Indian Elementary and Secondary School Program assessment, would herald a new approach and commitment on the part of the government. It would shift the management of Indian education from a bureaucratic environment, which is seen by many as being incapable of creatively responding to the challenges, to one concerned with process and independent of the bureaucratic restraints.

The council would establish the managerial framework that would expedite the transferring of resources to local bands based on the particular educational option or combination of options they had identified as best suiting their needs. While local bands would be accountable to the council for all educational expenditures, the council would play no role in direct management of programs.

2. A formula should be established that bases expenditures on objective criteria so as to enhance the capacity to forecast and control expenditures. Indian education continues to be in a development stage with lower academic attainment, inappropriate curricula and lower levels of education services. Thus, expenditure reductions cannot be foreseen for the near future.
3. Indian post-secondary students should be eligible for financial support on the same basis as other Canadian students. The federal government should reimburse the provinces for payments made to Indian students under their student-aid schemes.
4. A major and sustained emphasis should be given to innovative approaches that will enable Indians who are no longer attending school to acquire basic literacy and job skills. Funding should be drawn from existing CEIC resources and should be dedicated to this effort and not be subject to priorities and formulas that are inappropriate for the Indian population.

In considering the problems and challenges of Indian education an idea was tabled: to negotiate, with the appropriate level of Indian organizations, settlements that would transfer resources to them; the federal government would be allowed to withdraw from all constitutional and historical obligations pertaining to education. The study team was not in a position to give detailed consideration to this idea and would recommend a closer examination and evaluation of it, should it be of interest.

NATIVE EDUCATION

POST-SECONDARY EDUCATION

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

DESCRIPTION

This activity ensures that eligible Indians and Inuit have programs of financial assistance and instructional support services to participate in post-secondary education. It also provides support to a number of Indian colleges that prepare Indian students for entry into the Canadian university and college system.

OBJECTIVES

To encourage and support the education and/or career development opportunities of Indians and Inuit through post-secondary education.

To increase the number of Indian and Inuit students attending post-secondary institutions and completing courses of study to the point where numbers approach the national average.

AUTHORITY

The Appropriations Act.

HISTORY

The Indian Act identifies the government's responsibility for education for Indian children from six to 17 years of age. Since the early 1950s, the department has financially assisted eligible adults to take post-secondary programs. The principle of not refusing assistance to any eligible post-secondary student was established in the early 1970s and has been reaffirmed by subsequent ministers.

Currently, a Treasury Board authority provides support for the Post-Secondary Assistance Program (PSEAP) and a Cabinet authority provides support for the university and college entrance preparation program. Both these authorities allow for the provision of tuition and living allowances which are utilized to provide support to individual students and to pay universities and colleges for

the development of special programs by means of tuition fees and special registration fees.

Indian post-secondary institutions, of which there are three, Blue Quills and Old Sun in Alberta and the Saskatchewan Indian Federated College, have developed in response to three needs:

1. to act as a bridge between secondary school graduation and university or college entrance;
2. to develop special programs at the post-secondary level for the development of professionals and para-professionals in areas such as education and social work; and
3. to develop post-secondary programs of study that recognize the culture and history of the Indian people.

Courses of study offered by these colleges receive accreditation by brokering existing accredited programs in Alberta, Saskatchewan and Manitoba.

Indian colleges do not receive operational funding from the provinces.

STRUCTURE

Post-secondary education activity consists of the following programs:

- a. University and College Entrance Preparation (UCEP) - through band and departmental district offices, grants are made to individual students, to attend a pre-university year of study. Contributions are also given to post-secondary institutions for special programs; and
- b. Post-secondary Assistance Program - grants are given to eligible Indian and Inuit students attending post-secondary institutions; also included are incentive grants for graduate studies.

RESOURCES (\$000s)

	83/84	84/85	85/86
TOTAL	43,849	55,940	66,760
Person-years	17	17	17

BENEFICIARIES

Approximately 8,700 Indian and Inuit students are enrolled in post-secondary education programs.

ASSESSMENT

Financial assistance is made available to all registered Indians (living on or off reserves) who have been accepted into post-secondary institutions.

Some 8,000 Indian students attend post-secondary institutions and it is estimated that 30 per cent of these are from urban regions.

Full assistance to status Indians is not a stated constitutional responsibility.

In the view of the study team, the present system lacks accountability on the part of the student. Neither financial need, course-load nor continuing success are utilized as factors determining qualification for assistance.

There are statistical indicators of increasing numbers of Indians attending post-secondary institutions.

Percentage of Indian Population by Age Group Attending Post-Secondary Institutions

	1971	1981
15-19 years		
College	1.9	2.3
University	0.6	0.7
20-24 years		
College	2.8	4.0
University	1.5	2.8

25 years and over

College	0.5	1.0
University	0.2	0.9

Forty-three per cent of Indian students in university and 26 per cent in community colleges entered as mature students, i.e. without having completed secondary school.

In comparative terms, Indian attendance in post-secondary education continues to be below national averages.

**Percentage of Population Attending Post-Secondary
Institutions Fulltime (1981)**

	College		University	
	Urban	Rural	Urban	Rural
15-19 years				
Status Indian	3.8	1.8	1.3	0.5
Canadian	8.3	6.1	3.7	2.2
20-24 years				
Status Indian	5.9	4.8	3.2	1.9
Canadian	6.1	12.5	4.8	6.1

University graduation as a success indicator was estimated at 25.8 per cent for Indians and 72.6 per cent nationally in 1983.

Graduation at community colleges was judged to be considerably higher. This is attributed to lower academic requirements, more practical orientations and proximity in terms of rural populations.

Indian (Native) post-school institutions serve two distinct purposes. The first is to provide a "bridging" experience for Indians; considerable success is claimed for these institutions in this critical area of adjustment for Indians. The second is to develop a distinctive Indian post-secondary institution.

In the view of the study team, the attainment of parity with national averages is a questionable objective for it does not recognize regional differences, rural backgrounds, nor the aspirations and needs of the Indians and their communities.

The same objective fails to recognize the continuing difficulties of the Indian population in gaining adequate secondary school education.

Studies completed for the department estimate that attainment of parity would require expenditures of \$731,555,000 in the area of post-secondary education over the next ten years.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Maintain the status quo and provide all qualified Indians with support on the basis that it is a right, with no need or success qualifications.
2. (Preferred) Direct federal support to Indian students should be made available on the same basis as for all Canadians via both federal and provincial student aid plans, with the provinces being reimbursed for their support of Indian students. Such action would ensure full equivalency for Indian students within federal and provincial requirements and would be supportive of a federal approach to fulfilling its obligations within the framework of Canadian institutions.
3. Funds for reimbursement of provincial expenditures could be transferred to bands who would be responsible for covering loans and bursaries extended to Indian students by provincial governments.
4. The federal government should provide Indian colleges with core funding at a level and under conditions comparable to those provided to community colleges by the provinces. Provincial recognition should be a condition of such funding.

NATIVE EDUCATION

INDIAN AND INUIT ELEMENTARY AND SECONDARY SCHOOL EDUCATION

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

DESCRIPTION

The department manages an educational program involving approximately 80,000 students living on reserves or Crown lands. Three delivery systems are utilized:

1. Provincial schools with 51 per cent of students;
2. Federal schools with 26 per cent of students; and
3. Band schools with 23 per cent of students.

An additional 22,400 students living off-reserve attend provincial schools at no cost to the federal government.

OBJECTIVES

The objective is to ensure that eligible Indian and Inuit children have access to a quality and range of education that:

1. Is of comparable standard to that established by the provinces;
2. Recognizes the special cultural and social needs of the children; and
3. Encourages the development of skills and attitudes that lead to self-sufficiency and fulfillment within Canadian society.

AUTHORITY

Indian Act, s. 114-123.

HISTORY

Prior to 1950, Indian education was primarily administered by church and charitable organizations on behalf of the department.

From 1950 to the late 60s, major emphasis was increasingly placed on "integration", and Indian students

were encouraged to enroll in provincial schools. This emphasis resulted in some 680 tuition and capital agreements with provinces and boards of education by 1979. Provincial curricula were introduced into federal schools and attempts were made to bring educational services up to provincial levels. Parental involvement in federal schools was increased through the formation of some 215 school committees.

In 1967, the Hawthorn Report endorsed the approach of increasing the enrolment in provincial schools stating that these offered better programs and a wider range of educational opportunities. Further support was given by a 1969 government white paper which proposed that all Indian educational services be provided by provincial agencies.

Indian leaders opposed this approach stating that the protection provided to them by the Indian Act was essential to their well-being. They were given support by the Standing Committee on Indian Affairs which in its 1971 report stressed the need for Indian concurrence before any transfer of students, as well as special training for teachers, greater cultural relevance in curriculum, pre-school education, greater powers for school committees and the phasing-out of residential schools.

Over the past five years, the department has emphasized the development of band schools and education has become a central issue in the development of native self-government. While the quality of education and the range of educational services in the provincial schools remain superior technically, the increased value given to community control, native-sensitive curricula and school environments fuels the movement towards increasing the development of band schools.

STRUCTURE

The Department of Indian Affairs and Northern Development administers the program through agreements with provinces, agreements with Indian bands and, in the case of the federal schools directly via its regional offices.

Sub-activities include:

- a. Education in provincial schools -- master agreements with British Columbia and New Brunswick and/or agreements with local school authorities;

- b. Education in federal schools on reserves -- covers instructional costs; (Capital and overall administration costs are covered in another planning element);
- c. Education in band-operated schools on reserves -- covers same costs as above;
- d. Guidance and counselling -- services to students for all three of the above;
- e. Student transportation;
- f. Student financial assistance -- covers clothing and living allowances for children over 14 years of age in grade nine up, who board away from home;
- g. Student accommodation -- covers student residence operation and cost of private board and lodging; and
- h. Educational instruction support -- funding for Indian school boards, committees, etc.

RESOURCES (\$000s)

	83/84	84/85	85/86
Provincial Schools	157,700		
Federal Schools	55,800		
Band-operated Schools	50,200		
Guidance or Counselling	10,900		
Transportation	27,900		
Financial Assistance	2,900		
Student Accommodation	21,600		
Educational Support	11,500		
TOTAL	338,500	368,700	383,000
PYs	1,588	1,584	1,592

Note - All capital expenditures excluded. All overall administrative expenditures for federal schools excluded.

BENEFICIARIES

80,000 students on-reserve or on Crown lands.

RELATED PROGRAMS

Indian Post-secondary Education; Education Assets Facilities.

ASSESSMENT

Statistical indicators of progress in Indian education are difficult to identify. In part, this is due to a lack of comparative data and to the difficulties of establishing and maintaining an accurate data base.

While there are indications that increasing numbers of Indian students are progressing through the early grades, statistical data indicate continuing difficulties in the percentage of students leaving secondary school prior to graduation.

Percentage of Population not Attending School Full-Time

15-19 years		Urban (per cent)	Rural (per cent)
1981	Status Indian	46.9	54.7
	Canadian	33.4	26.2
1971	Indian Band	40.3	47.9
	Canadian	26.7	28.9

There are indications that, on average, Indian students continue to be older in each grade than is normal across Canada.

Numerous studies over the past decade have stressed the critical importance of the development of relevant curricula. However, in the study team's view, no concerted or sustained effort has been implemented by the federal government. The provinces, which appear to have been more innovative, express frustration with the lack of federal leadership and commitment.

The lack of standards and the quality of the education, particularly in the federal schools, has been noted by many studies, both internal and external to the department.

While there is a policy requiring federal schools to operate in manners consistent with provincial standards and practices, evaluations conducted by the department and observations made by provincial officials indicate that in reality such is not the case. The general quality of education within both the general and the band schools is rated below that offered in the provincial schools, as are the working conditions for teachers.

The extent to which provincial schools have superior capabilities in delivering education is clearly indicated in a survey included in the department's document, "Phase One" (see Annex I).

Indian parents indicate their recognition of this reality by continuing to enroll their children in provincial schools. Presently 50 per cent of all Indian children are in those schools and in at least three provinces it is anticipated that numbers will continue to increase.

Considerable concern has been expressed by numerous sources as to the potential negative influence of Indian political interests on the development and funding of Indian education. Generally, a strong view is expressed that political impact should be minimal.

Numerous sources have noted the need for definition and consistent strategies of implementation of band control of schools. However, such advice has not been followed and there appears to be serious confusion.

In the view of the study team, the lack of formula payments and a considerable degree of decentralized decision-making, coupled with conflicting policy direction, place regional public servants in positions where they are highly susceptible to powerful lobbies and special interests when formulating funding decisions.

The need for greater parental responsibility and input into the education of the Indian child is beyond question; however, the social and cultural realities confronting many Indians indicate progress in this area will be difficult.

Of increasing importance is the clarification of the federal government's responsibility towards status Indians living off-reserve. This is an increasing phenomenon and as

expressed by several provinces, is an area of concern. It appears that at present the department has taken the position that Indians off-reserve in elementary and secondary schools are not its responsibility; however, there does not appear to be consistency in the implementation of this position.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Schools directly operated by the federal government should be phased out as soon as possible.
2. Individual bands should be presented with a range of options from total band control of schools to contracts for full or partial service with provincial school districts.
3. Indian parents and bands should be supported in determining which of the options (make or buy) they prefer. Having determined their preference they should proceed to negotiate this with both the federal and provincial governments.
4. Funding for Indian education should be based on a per-student formula with provision for enhancement funding for special needs.
5. The maintenance of standards consistent with the quality of education offered to other Canadian children should be a requirement for all band schools.
6. A shift in the mode of the federal government's involvement to one that develops and maintains the framework in which Indian education is delivered from one that manages, administers and delivers programs would be consistent with commitments to Indian control and be most likely to ensure effectiveness and success.

Alternate Organizations

In order to implement these proposals, three organizational alternatives were considered:

1. Status Quo.

Advantages - continuity ensured; and
 - full access to all operations of the department.

Disadvantages - traditional perspectives and commitments would continue to dominate;
 - program delivery mode of operation likely to continue;
 - restraint of government procedures would continue;
 - likely to continue to be an item in political negotiations between department and Indian leaders; and
 - would not signal a new era.

2. Re-organize the Education Directorate within the department to ensure a significant shift in its mode of operation.

Advantages - ensure some degree of continuity;
 - maintain full access to the department;
 - place some distance between political negotiations and management of Indian education; and
 - could move from program delivery mode to framework mode.

Disadvantages - traditional Indian suspicions of the department would hinder possibility of real change;
 - government procedures would continue to retard organizational change and management feasibility;
 - insufficient distance between political interests of the department and the management of Indian education; and
 - would not signal new approach and different Indian/department relationship.

3. (Preferred) Create by legislation an Indian education council that would report to Parliament via the minister. The appointed council would have the mandate to develop the framework and manage the processes by which Indians would assume direct control of their education.

Advantages

- the commission would be directed by leading Canadians a majority of whom would be Indian;
- it would operate independently of established bureaucracies and procedures enabling efficient change in management mode and continuing flexibility;
- accountability would be direct and public;
- would minimize likelihood of Indian education being utilized in general negotiations between Indians and the department;
- would represent a significant break from the traditional Indian/departamental relationship;
- would enable complete commitment to education and the attainment of objectives within specified time frames; and
- would reduce size of bureaucracy.

Disadvantages

- would weaken continuity; and
- would limit access to the department.

Given the recognition that Indian control of education is essential to ensuring future success:

- a. there is a need for a rapid and effective change to a process-management approach;
- b. there would be many advantages of a new relationship with the Indian people; and
- c. the preferred option is the establishment of an Indian education council.

ANNEX 1

PROGRAM DELIVERY FACTORS ASSOCIATED WITH PROGRAM DELIVERY

FACTOR	FEDERAL	BAND	PROVINCIAL
Curriculum and Standards	<ol style="list-style-type: none"> 1. Little support 2. Lack of Specialists 3. Standardized tests not validated for Indians 4. No centralized curriculum development 	<p>Same</p> <p>Same</p> <p>Evaluation instruments lacking</p> <p>Same</p>	<p>Curriculum constantly being renewed</p> <p>Cultural content included but mostly inappropriate</p> <p>Evaluations often invalid</p> <p>Full central support for curriculum development</p>
Facilities	<ol style="list-style-type: none"> 1. Construction standards inadequate 2. Poor maintenance system 3. Responsibility for maintenance not with educator 	<p>Same</p> <p>Maintenance improves under bands</p> <p>Bands inherit rundown facilities</p>	<p>Standards meet needs</p> <p>Superior facilities overall</p> <p>Good maintenance</p>
Staff	<ol style="list-style-type: none"> 1. Difficult working conditions 2. Employee benefits attractive 3. Teacher qualifications may be out-of-province 4. Limited professional development 5. Teacher orientation depends on community 	<p>Same</p> <p>Inferior Employee benefits</p> <p>Same</p> <p>Very limited professional development</p> <p>Good teacher orientation</p>	<p>Better working conditions</p> <p>Powerful unions advance teachers' interests</p> <p>Teachers qualified to provincial standards</p> <p>Professional development very good - negotiable</p> <p>Teachers unfamiliar with Indian culture</p>

FACTOR	FEDERAL	BAND	PROVINCIAL
Staff Support and Supervision	1. Staff reduction reduced effective administration	No departmental monitoring	Well-developed
	2. Little central supervision	No central supervision	Central supervision
	3. Little teacher development support	No teacher support	Specialist staff for development
	4. Funding and isolation prevent upgrading	Same	Professional development supported by province, boards and unions Staff access to universities
Student Support	1. Lack of special education	Same	Full diagnostic, remedial and psychological services
	2. Reduction of counsellors	Bands employ social counsellors	Guidance and career counselling
	3. Ancillary services reduced	Supplemental services negotiable	Student services at parents' cost
	4. Varied degrees of parental involvement	Strong parental involvement	Teacher expectations for Indian students low; parents uninvolved

NATIVE EDUCATION

EDUCATION ASSETS FACILITIES

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

DESCRIPTION

The program includes provisions for:

- a. capital construction costs associated with school buildings and related infrastructures (water, sewers, etc.);
- b. O&M - repairs and maintenance costs, salaries of janitors, stationary engineers.

Both on- and off-reserve projects are funded, the latter as components of agreements with provinces or local educational authorities.

OBJECTIVE

The objective is to construct and maintain adequate federal educational facilities for Indian children and to participate in joint capital agreements with provinces.

AUTHORITY

The Indian Act and various Treasury Board authorities.

HISTORY

Until after World War II, most schools on reserves were residential and owned and maintained by religious organizations.

With the increasing necessity to adhere to provincial standards for facilities on-reserve and as a result of the increased enrolment of Indian children in provincial schools in the 1960s, the department became increasingly involved in facility development both on and off reserves.

Reports have indicated that on-reserve school facilities continue to demand upgrading, as many remain substandard, and new and enlarged facilities are required for the growing school populations.

STRUCTURE

Major projects are managed by the Department of Public Works. A number of schools are now being built using on-reserve day labour rather than off-reserve contractors.

RESOURCES (\$000s)

	83/84	84/85	85/86
Capital:			
Major projects	30,300	30,300	58,300
Contribution agreements	29,000	44,900	28,800
O&M:			
Federal schools	10,300	9,100	11,700
Contribution agreements	16,900	17,700	19,000
Salaries (Federal schools)	3,400	3,500	4,800
TOTAL	89,900	105,600	122,600
PYs	116	116	116

BENEFICIARIES

Indian children attending provincial, federal or band schools.

RELATED PROGRAMS

Indian and Inuit elementary and secondary education.

ASSESSMENT

A recent survey of facility needs indicated the following:

1982/83 to 1986/87 (\$000)

35 new schools and additions to existing structures	355,777
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Federal/provincial school construction (off-reserve)	<u>28,293</u>
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TOTAL	384,070
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1982/83 to 1991/92

45 new schools and additions to existing structures	389,613
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Federal/provincial school construction (off-reserve)	<u>28,293</u>
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TOTAL	417,906
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The above identification of needs is incomplete in that:

- demographic shifts and changes were not considered;
- the survey was based on data in regional offices of DIAND and not on local community data or surveys;
- there is not an adequate projection of long-term (10 year) need; and
- there is no joint (federal/provincial) school construction beyond the first five years.

In the view of the study team, this latter point reflects the policy and planning pressures that restrict

local bands' capacities to determine for themselves whether or not they want to share local provincial facilities and leads them to the sole option of band-operated schools.

Over the past decade, all new schools, additions and renovations have been built to provincially established construction standards. According to recent surveys, however, many on-reserve schools remain below standard due to the considerable backlog resulting from many years of neglect.

Federal schools are not insured; when they are lost or damaged by fire, temporary classrooms must be utilized. The average replacement time in these instances, due to the inflexibility of the budgeting process, is five years.

Since 1971, there has been an average of 20 projects a year with an average cost of \$3 million.

All federal government projects are budgeted currently on a "pay-as-you-go" basis with no provision for schemes of spreading cost-recovery such as debentures.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Immediate consideration should be given to alternative means of financing school construction, including longer term financing.
2. Whenever feasible, direct involvement of provincial school authorities in the provision of on-reserve facilities should be encouraged.
3. All future projections of funding requirements should be based on a more comprehensive survey of needs.
4. To ensure that observed planning and project control weaknesses can be rectified, and consistent with the options pertaining to Indian control, the proposed Indian education council should develop the processes whereby Indians will control the construction of facilities and assume their ownership.

NATIVE EDUCATION
NATIONAL SCHOOL OF DENTAL THERAPY
HEALTH AND WELFARE CANADA

DESCRIPTION

On contract with Health and Welfare Canada, the University of Toronto provides a two-year, post-secondary program in basic dentistry in Prince Albert, Saskatchewan, graduating about 10 dental therapists per year who practise a basic and strictly limited dentistry as departmental employees in the territories and in other areas where there are Indian reserves. This program pays the costs of the school and other student charges except for textbooks, travel, and room and board.

OBJECTIVE

The objective is to provide dental services in remote provincial reserves and in the two territories where dental needs are very pronounced and dentists are hard to obtain. When 96 therapists are in departmental employ, the number of students may be reduced although the need for the school will continue.

AUTHORITY

The Appropriations Act.

HISTORY

The school was started in Fort Smith in 1972 and has since moved to Prince Albert, where clinical material is more readily available. Approximately 100 students have graduated.

RESOURCES (\$000s)

	83/84	84/85	85/86
	1,090	1,437	1,337
Person-years			3

BENEFICIARIES

Twenty, first-year students are accepted each year. Half are native or northern Canadians. Of the graduates, 67 are now working for the department as dental therapists in the territories or on Indian reserves.

STRUCTURE

The school is staffed and managed entirely on contract by the University of Toronto. When placed, the dental therapists work under prescription from supervising visiting dentists who are part of the Indian and Inuit Health Services, and from the staff of the school.

RELATED PROGRAMS

Student costs for travel and for living are not covered by this program. For status Indians and Inuit, DIAND pays these costs. Territorial students may be supported by their governments.

The Indian and Inuit Professional Health Careers Development Program of the Medical Services Branch may be a related program, through recruitment activity of its regional advisors.

ASSESSMENT

The initial objective of the program was to overcome the serious service inadequacy in the dental care of Indians, Inuit and northerners generally. As a service measure it is considered extremely effective, because it has provided continuing service to 67 areas previously without service. It was originally patterned after a New Zealand model and is now being used as a model for service delivery by a number of other countries. The World Health Organization considers the School of Dental Therapy a centre of excellence. The branch considers it efficient, because the therapists who are employed at salaries of about \$35,000 to \$40,000 deliver services which would be billed at approximately \$65,000 or \$70,000 if done by a dentist on a fee-for-service basis.

Its objective was originally to supply the territories, but about half of the employed graduates are working in the western provinces. Its original purpose, therefore, has

altered, and this may partly account for a difficulty of an educational nature which seems now apparent. In the study team's opinion, from the educational point of view, in contrast to the service point of view, the program's objectives are less clear, possibly less appropriate, and possibly contentious. The school is not designated as a post-secondary school by its province of residence and consequently its graduates are not employable by any employer other than Health and Welfare Canada. Although the graduates are able to take well-paid and presumably satisfying jobs in their own communities, they do not receive the marketable diploma which should reward two years of successful study in a post-secondary school of acceptable standards. They are also not entitled, as students, to receive provincial or federal student aid.

The study team on Native Programs suggested that agreement should be sought with the provinces to recognize the school's training. This means, in fact, designation by Saskatchewan since normally provinces recognize each other's institutions.

OPTIONS

The study team recommends to the Task Force that the government consider attempting to have the program designated as post-secondary.

NATIVE EDUCATION

INDIAN AND INUIT PROFESSIONAL HEALTH CAREERS DEVELOPMENT PROGRAM

HEALTH AND WELFARE CANADA

DESCRIPTION

This program encourages the recruitment of Indians (status and non-status) and Inuit into education for professional health careers through the provision of counselling, employment and bursaries, and through the development of special post-secondary programs at universities and colleges which lead to degrees and diplomas in the professional health care field.

The employment program places students and prospective students in health work so they can assess the work, decide on their suitability, and gain experience. The bursary program for students totals \$100,000, with average awards of \$5,500 - \$6,000. The major program component is the contributions, which can be paid to either universities or colleges. Each of the nine administrative regions of the branch has a regional advisor who develops the program, stimulates student interest and devises and negotiates regional educational programs.

OBJECTIVES

The objectives are to encourage more Indians and Inuit to enter health professional training and to facilitate their entry.

AUTHORITY

Appropriations Act.

HISTORY

In February, 1984, the program was approved by Cabinet for three years, with an evaluation to take place in March, 1987. Its summer employment and bursary components have just completed their second year of operation. The hiring and placement of eight regional advisors is still under way.

RESOURCES (\$000s)

83/84	84/85	85/86
Nil	1,900	2,800

PYs 1985/86: 27. Distribution: 15 PYs for short-term employees, 9 regional staff, 3 head office.

BENEFICIARIES

A distinctive feature of the bursary program is that its beneficiaries include both status and non-status Indians as well as Inuit. In 1985, six bursaries were awarded, 88 persons were placed in summer employment, and 11 institutions received contributions.

Of the \$1,840,000 in 1985/86 funds already allocated, the provincial distribution is as follows:

	BC	ALTA	SASK	MAN	ONT	QUE	NB	NS	PEI	NWT	YK
Percentage	13	21	26	11	15	8	1	5	1	1	1

STRUCTURE

The program is administered through the nine regions of the Medical Services Branch, on a decentralized basis. The exceptions to decentralization are that the bursaries are awarded on recommendation of a central Bursary Advisory Board, and that health promotional materials are prepared centrally. Each region has a regional advisor on staff.

RELATED PROGRAMS

DIAND programs in Native education, student aid programs generally, justice programs in Native education and the MSB (Health and Welfare Canada) School of Dental Therapy are all related.

ASSESSMENT

This program is in its initial development and assessment would be premature. Its objective is clear. It seems very rich in resources. Whether it has overlaps with other programs is less clear and an assessment would require, among other things, closer examination of the institutions with which it is developing contribution

agreements. The program should be considered in the context of the other post-secondary training programs for Indians and Inuit.

OPTIONS

The program was approved for three years and is now at the half-way mark. The study team recommends to the Task Force that the government consider not renewing the program, in light of the principles stated in the Overview on Native Services.

NATIVE EDUCATION
NATIVE LAW STUDENTS
DEPARTMENT OF JUSTICE

DESCRIPTION

This program provides assistance to non-status Indians and Métis entering law schools. It includes the possibility of an eight-week, pre-law program at the University of Saskatchewan for those who do not meet law school admission criteria. Assistance is for up to a three-year period at a law school and for a limited number of students, the Bar Admission course and graduate studies. Allowances of \$115 to \$235 per week plus a maximum of \$100 per month for shelter, plus tuition, books, travel and moving expenses are paid to the students.

OBJECTIVE

The objective is to increase the number of Native (non-status and Métis) lawyers.

AUTHORITY

Appropriations Act.

HISTORY

The program was initiated in 1972 to provide the same opportunity for Métis and non-status Indians in law programs as DIAND provided for status Indians in general post-secondary support.

The number of participants entering the program has been increased from five to 10 per year. There are 30 students in the program at any one time.

Graduates are primarily employed by Native organizations and governments.

STRUCTURE

The program is administered by the Justice Department, the Native Law Centre, and law schools.

RELATED PROGRAMS

There are similar programs operated by the departments of Indian Affairs and Northern Development, National Health and Welfare, and Regional Industrial Expansion.

RESOURCES (\$000s)

	84/85	85/86	86/87
	248.5	303.5	357.5
Person-years	1		

BENEFICIARIES

Ten non-status/Métis per year.

ASSESSMENT

Given the objective to reach the same number of Native lawyers per capita as exists in the general Canadian population, this program's effect is limited only by the funding available to it. The appropriateness of this parity objective, however, is questionable.

In the view of the study team, the original intent to fund a pre-law program for Natives with the academic capacities but lacking the secondary school qualifications remains valid and appropriate.

The idea that non-status and Métis should receive support on the same basis that it is available to status Indians may not be appropriate.

OPTIONS

The study team recommends to the Task Force that the government consider refocusing the program and returning it to its original mandate of providing support to a pre-law program. Support to Native students entering university courses of study should be on the same basis as that which is available to all Canadians.

DIRECT EDUCATION SERVICES (NON-INDIAN)

OVERVIEW

The federal government itself provides a limited number of educational services, directly or through contract, rather than leaving it to educational institutions to perceive and fill the need. The issue here is a variant of the "make or buy" question. The study team sees a proper role for the government in continuing to provide educational services where these services meet certain criteria:

- a. the government is the unique or major employer of the graduates;
- b. the development of a particular sense of professionalism is a major part of the training objectives; and
- c. practical alternatives do not exist for the training in question.

PROGRAM

The activities of this type which the study team has identified are:

Institution	(\$000s) With Student Cost	(\$000s) Without Student Cost
Canadian Military Colleges*	81,400	57,800
The Coast Guard College**	7,400	6,400
Education and Training of Penitentiary Inmates*	-	14,706
Outpost Nursing*	625	314
University Education Programs, DND*	n/a	2,500

* 1985/86

** 1984/85

Capital costs not included. For the military colleges, not all institutional costs are included.

Although the per-student costs of these activities are high compared to the per-student costs at public institutions, a number of substantial differences exist

between these and the public institutions with respect to period of study, intensity of study, staff-student ratio, and the components included in cost.

In these services the federal government designs the program of studies, selects and hires the students and employs the graduates after completion of their studies. (The exception is the Education and Training program for penitentiary inmates.) Another institution which could logically form part of this group of direct services is the Transport Canada Training Institute (TCTI), but TCTI appears to be outside the study team's mandate because of its concentration on short-term courses teaching specific skills. An institution which conforms partly to the description is the School of Dental Therapy of the Department of National Health and Welfare, which we have grouped with the educational programs for Natives.

ASSESSMENT

The questions we have examined with respect to direct federal educational services are: a. do they meet the criteria listed above? b. are they operating with due efficiency, accessibility, and benefit to the students? and c. are the students satisfactory employees who are retained for a reasonable period of time?

On the first question, whether the institutions meet the criteria for a government service, we have no doubt that the several colleges exist for the training of government personnel and are strongly directed towards producing a specific kind of professionalism and community spirit. There may, however, be alternative ways of meeting these needs. Generally, the options are to continue providing the training, or to contract it out to other institutions.

With respect to the education of penitentiary inmates, there is sufficient justification for government management inasmuch as there is no practical alternative given the federal government's total responsibility for inmates while they are under sentence and incarcerated. Correctional Services Canada has already moved towards contracting-out specific educational activities to other organizations (chiefly local school boards) whenever possible, and this move should be encouraged.

With respect to Outpost Nursing (and the School of Dental Therapy), the situation is somewhat different, in

that for service needs, the employing department requires staff who do not fit into the existing scheme of professional regulation. This problem may be unique to the health professions. The presence of the federal government in the training of special health professionals should be regarded as a transitional necessity.

We find, then, that while there is sufficient justification for the government to provide these educational services directly at present, there is room for examining periodically the potential for moving them -- except for the penitentiary services -- out into the public or private educational sector.

On the other two questions -- whether the federal educational services are operating efficiently, with appropriate accessibility and benefit to students, and whether the students are adequately retrained -- we have insufficient evidence to form judgements.

OPTIONS

Specific proposals regarding these programs may be found in the assessment notes.

**DIRECT EDUCATION SERVICES
(NON-INDIAN)
EDUCATIONAL PROGRAM
CORRECTIONAL SERVICE CANADA**

DESCRIPTION

The educational program of Correctional Service Canada (CSC) provides in-house and correspondence courses at all levels of the educational system, to improve the educational, employment and social skills of inmates of federal correctional institutions.

OBJECTIVES

The objectives of the program are:

- a. to protect the public; and
- b. to assist individual offenders by returning them to society better equipped to lead socially acceptable lives.

AUTHORITY

The Penitentiary Act.

HISTORY

Education in Canadian penitentiaries was limited to trades courses and elementary education until the rapid prison construction which took place in the 1960s. The new types of academic programs introduced for these new facilities were purchased under contract from provincial authorities, or directly from boards of education, colleges and universities. The Correctional Service ceased hiring academic teachers in 1971, and began moving to contract-out all academic courses. Exceptions were made, on a case-by-case basis, especially in the Quebec region. The current academic programs are hybrids of general education and upgrading for useful entry into vocational courses.

The level of educational achievement of inmates is significantly lower than that of the general public. In 1984/85, half of the incoming inmates tested were function-

ing at the grade 8 level or below. Overall in Canada, 16 per cent of the adult population has less than grade 9 education. Since most vocational training courses require grade 10 or, increasingly, even higher levels of schooling for entrance, upgrading is required before inmates can benefit from job skill training.

A review of the educational program has recommended a shift to more literacy and social skills training as basic needs for inmates returning to society. More emphasis is already being given to programs which provide interim qualifications, rather than to full courses taking three years to complete; the average inmate stays in a penitentiary two years or less.

The educational program has experienced some difficulty in attracting to their courses inmates needing literacy upgrading; vocational training has higher status. Successful attempts have been made to have prisoner groups promote literacy and social skills programs. At present about 4,500 inmates, just under one-half the federal prison population, are taking at least one course. About 45 per cent are in the academic or social skills areas.

The educational program plans to contract for more short-term courses, more courses that develop basic skills and more courses that lead directly to employment following release.

STRUCTURE

The academic courses are delivered within Canadian penitentiaries by Correctional Service staff, contract teachers and volunteers, and through correspondence courses. Contracts are with local boards of education, colleges and universities and, in Quebec, with a private company using provincially approved curricula. Students obtain certificates from the contracted educational body, not from the Correctional Service.

RESOURCES

	83/84	84/85	85/86
TOTAL	\$12,596,432	\$14,614,525	\$14,763,820
Person-years	173	173	173

The budget breakdown for 1985/86 provides the following:

Operating Expenses	\$9,768,447
Salaries	\$4,937,587
Capital	57,786
TOTAL	<hr/> \$14,763,820

Since academic and vocational programs are not budgeted separately, these figures for the academic programs are estimates. In 1984/85 and earlier, the total resources available were boosted through internal (CSC) budget over-allocation which added approximately \$3 million to the budget in 1984/85. With budget restraint, these funds are no longer available, at least not in 1985/86.

BENEFICIARIES

In 1983/84, 1,647 inmates, on a full-time equivalent basis, took academic and social education courses, in federal institutions in eight provinces. In 1984/85, the number climbed to 1,881 and in 1985/86 to 2,108. Local educational institutions obtain contracts to provide the course.

ASSESSMENT

Recent studies suggest that a successful way of reducing the recidivism rate is to upgrade the basic educational and social skills of inmates. Correctional Service is examining the effects of shifting resources from university level and extended vocational courses to shorter vocational training, literacy upgrading and social skills development. Given the educational profile of inmates, and the short period most spend in prison, this appears to be an appropriate change in strategy in the view of the study team. Experience has shown that inmates have a better chance of obtaining employment upon release if they receive

certificates from recognized educational authorities rather than from Correctional Service, regardless of the quality of courses offered.

Approximately half the courses, of all types, are currently provided through contracts, rather than by teachers on staff. This allows greater flexibility to meet the needs of inmates in individual institutions. It also avoids the problems created by the lack of a career path for teachers within CSC.

In the study team's opinion, it is not apparent that the educational services have sufficient resources to complete the shift to the new academic and social skills programs they have planned. Yet, to meet the objectives of protecting the public and assisting inmates to lead socially acceptable lives upon release, inmates must be better prepared. Illiterate or unskilled ex-prisoners have little chance of obtaining gainful employment. Education could provide an alternative to a vicious cycle of unemployment and crime.

There is some indication that some school boards that provide educational services on contract to CSC are including inmates in their general student figures and obtain provincial funds for them as well. This appears to be basically an accounting problem to be solved by provincial authorities.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Correctional Service Canada should accelerate the process of moving to contracted teaching services, with the aim of arriving at a completely contracted system as soon as possible.
2. Education services, which play a crucial role in helping prepare inmates for release, should be sustained at a level adequate to ensure that all motivated inmates may benefit from them.

**DIRECT EDUCATION SERVICES
(NON-INDIAN)**

UNIVERSITY EDUCATION PROGRAMS

DEPARTMENT OF NATIONAL DEFENCE

DESCRIPTION

Although the military colleges provide much of the university education for personnel entering the Armed Forces, when a student's degree program is not available at a military college, he or she is subsidized to attend civilian universities.

The University Training Plans (UTP) will subsidize officers in the final two years of study for a baccalaureate degree (UTPO). Personnel in other ranks will be sent to university or military college for the entire time required to complete the degree (UTPM/W).

Through the Post-Graduate Training Plan (PGTP), the department sponsors post-graduate training in selected advanced technology and management fields at appropriate domestic and foreign institutions.

The Military Medical and Dental Training Plan sponsors serving officers for training as doctors and dentists. These plans provide up to five years academic subsidization, including one year of internship for potential medical officers.

OBJECTIVE

The objective of the Undergraduate Program is to educate and train personnel for careers of effective service in the Canadian Forces.

The objective of the Post-Graduate Training Plan is to train officers to manage the high-technology equipment which continues to enter the department's inventory and to keep abreast of new labour management and behavioural science techniques.

The Military Medical and Dental Training Plan trains Armed Forces officers as doctors and dentists.

AUTHORITY

The National Defence Act.

HISTORY

The UTPO and the UTPM/W were initiated as formal programs to ensure that the defence establishment had officers trained to manage increasingly complex technology and to keep abreast with new managerial and behavioural science techniques.

The Post-Graduate Training Plan was organized as a formal program in 1963/64. Previously, officers were sent on post-graduate training in a more ad hoc fashion. Officers who graduate must serve in positions that require the utilization of their specialized knowledge for a period of three years. Two years of service for each year at school is obligatory.

The Military Medical and Dental Training Plans pre-date the two World Wars.

STRUCTURE

These programs are administered by the Directorate of Professional Education and Development, within the Recruiting, Education and Training Divisions of the Personnel Development Branch reporting to the ADM, Personnel.

RESOURCES (\$000s)

83/84	84/85	85/86
2,600	2,400	2,500

BENEFICIARIES

The beneficiaries are military personnel of the Armed Forces.

Presently, 190 persons are enrolled under the UTPM/W program, 35 under UTPO and 193 under PGT.

ASSESSMENT

In the view of the study team, the programs' objectives are concise and clear and, as they are directly related to the planned manpower requirements of the defence establishment, they are realistic and attainable.

The programs offer military personnel an extremely rich package of academic advancement programs directly related to promotion to more senior ranks.

The extent to which such programs are based on the need for an increasingly highly educated officer corps and DND's need to provide such opportunities to those within its ranks raise fundamental questions concerning the need to develop a cadre of qualified persons solely from within the military.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Maintain the status quo.
2. (Preferred) DND should shift some of its emphasis from development of its personnel resources from within to recruitment of those with appropriate university education.

**DIRECT EDUCATION SERVICES
(NON-INDIAN)**

CANADIAN MILITARY COLLEGES

DEPARTMENT OF NATIONAL DEFENCE

DESCRIPTION

The Canadian Military College system consists of three institutions: a. the Royal Military College of Canada (RMC) in Kingston, Ontario; b. the Royal Roads Military College (RRMC) in Victoria, British Columbia; and, c. the Collège militaire royal de Saint-Jean (CMR) in Saint-Jean, Québec.

A bachelor's degree program is provided through the Regular Officer Training Plan (ROTP) and the Reserve Entry Training Plan (RETP) to male and female candidates. Two University Training Plans are available to serving officers and other ranks of the Canadian Forces. The RMC also provides a post-graduate studies program (PGT) in selected disciplines tailored to the needs of the Canadian Forces.

Under the ROTP, costs of tuition, uniforms, books and instruments and other essential fees are borne by the Department of National Defence for the duration of the program. In addition, an Officer Cadet is paid a monthly salary. Free medical and dental care is provided through the entire training period. Upon graduation, Officer Cadets are granted commissions as officers in the Canadian Armed Forces. Graduates are obliged to serve a minimum of five years in the Regular component of the Canadian Forces.

Under the RETP, the Cadet pays fees to help defray the cost of tuition, clothing, books, instruments, laundry, dry cleaning, meals and accommodation. Cadets are required to take summer training with the Regular Force, for which they are paid. On graduation, they undertake to serve in an active component of the Reserve Force.

The University Training Plan available to officers (UTPO) subsidizes the final two years of study for a baccalaureate degree. The plan serving other ranks (UTPM/W) sends them to a university or military college for the entire time required to complete a degree.

Students can obtain degrees in the following fields: Arts, Administration, Engineering and Science. Honours degrees are available in the fields of Arts and Science. All degree programs at CMC are fully accredited, with courses of instruction providing a sound and balanced liberal, scientific and military education. Military training at the colleges seeks to develop a high degree of physical fitness in the officer cadets and to give them a sense of responsibility, self-discipline and leadership. Additional training provides second language skills; by 1990, cadets will have to be fully bilingual to graduate.

In 1986, 310 students are scheduled to graduate from the colleges.

OBJECTIVES

- a. To prepare and motivate officer cadets for effective service as commissioned officers in the Canadian Forces by:
 - providing a university education in appropriate disciplines designed to meet the unique needs of the Canadian Forces;
 - developing qualities of leadership;
 - developing the ability to communicate in both official languages and understand the principles of biculturalism;
 - developing a high standard of personal physical fitness; and
 - stimulating an awareness of the ethic of the military profession.
- b. To improve the educational background, in appropriate fields, of students who are officers in the Canadian Forces, by providing undergraduate and post-graduate courses in both official languages.

AUTHORITY

The National Defence Act.

HISTORY

Each of the three colleges has its own history.

- a. Royal Military College of Canada, Kingston, was founded in 1876 and was accorded degree-granting status by the Royal Military College of Canada Degrees Act, 1959. RMC accepts senior matriculants and offers four-year courses and degrees in Arts, Engineering and Science.
- b. Royal Roads Military College, Victoria, was established as a Naval Training Establishment in 1940 and in 1942 it became the Royal Canadian Naval College. In 1947, air force cadets were admitted and in 1948 it became a tri-service college. Royal Roads was accorded degree granting status by the Province of British Columbia in 1975. Royal Roads accepts senior matriculants in Arts, Engineering and Science and offers degrees in Physics and Oceanography, Physics and Computer Science, and Military and Strategic Studies.
- c. Collège militaire royal de Saint-Jean was established in 1952. CMR accepts junior or senior matriculants in Arts, Science, Administration and Engineering, but offers degree programs in only the first three of these disciplines.

STRUCTURE

The ADM (Personnel) exercises command over the Colleges. Each College consists of three separate 'wings' of responsibility (Academic, Military, Administrative). A commandant commands the College, with a principal responsible for the academic program. Professors may be civilian or military personnel.

RESOURCES (\$000s)

Financial resources for the three military colleges were as follows:

	85/86	84/85	83/84
O&M	12,700		
Capital	1,100		
Salaries:			
military	10,300		
civilian	28,200		
students	21,000		
Benefits:			
military	1,400		
civilian	4,100		
students	<u>2,600</u>		
TOTAL	81,400	78,500	75,100

Person-years (85/86): Civilian - 835, Military staff - 230, Military students - 1,539.

BENEFICIARIES

Officers, cadets and other ranks of the Canadian Armed Forces.

ASSESSMENT

Students spend 39 weeks each year in academic study and nine to 10 weeks in practical military training. As the program is full-time and live-in, activities (academic, physical and social) are organized on a six-day-a-week basis.

This program expends approximately \$54,000 per student per annum based on direct costs. If salaries for students are subtracted the cost is \$38,000 per annum. An average for Canadian universities is estimated to be \$7,500 in 1985/86.

Intake to the various programs and the courses from which the students graduate are closely linked to the planned personnel requirements of the forces.

Students are carefully screened on recruitment and therefore the drop-out rate is lower than in civilian programs. Students who fail a year may repeat it, but without pay.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Consideration could be given to integrating military college students into Canadian universities. Students could reside on-base and would have some four months, May to August, for military studies. Should this option be considered, it would require further study as to its impact on the military.
2. (Preferred) Salaries should not be paid to college students during the academic year. They should be paid for summer training, which is non-academic.

**DIRECT EDUCATION SERVICES
(NON-INDIAN)**

OUTPOST NURSING

HEALTH AND WELFARE CANADA

DESCRIPTION

Health and Welfare Canada (HWC) contracts with Dalhousie University to provide a 15-month program in outpost nursing which prepares registered nurses with clinical skills to function as primary health care providers in sparsely populated and isolated communities where "on-site" physicians are not accessible to provide medical care. The nurses are departmental employees.

OBJECTIVE

The objective is to prepare registered nurses to function competently in an "extended" medical role. These required skills go beyond the traditional role and function of nurses and involve case management and emergency services until evacuation and referral to a physician and hospital setting are possible.

AUTHORITY

Appropriations Act.

HISTORY

The program was established in the late 1960s, and was funded by Dalhousie University's own resources until 1978, when HWC accepted the financial responsibility for the program but redesigned it to provide more precisely for the Medical Services Branch's needs. A similar program operated at the University of Alberta but was cancelled last year because of disagreement over program length and quality.

STRUCTURE

The program is financed by contract from Ottawa. It consists of eight months of institutional training and seven months of field experience under supervision.

RESOURCES

83/84	84/85	85/86
\$561,900	\$623,600	\$625,500
85/86 Budget Breakdown		
Contract to Dalhousie University		\$314,300
Salaries for participants		\$276,000
Participants' travel		\$ 35,200
Person-years	- Nil	

BENEFICIARIES

Twelve nurses per year. Nurses hired to take this program are hired "under level" (i.e. as not yet fully qualified).

RELATED PROGRAMS

There are no related programs within the study team's mandate.

ASSESSMENT

The objective of the program, i.e. to provide appropriate training for staff required to work in exceptional and isolated circumstances, is clear and appropriate. No problems are said to occur with respect to the boundaries of health disciplines. The retention rate in departmental employ of the graduates is far superior to the retention rate of those without the required skills.

From an educational point of view, it appears appropriate in the opinion of the study team to contract with a recognized institution to provide training tailored to departmental needs which also bestows a recognized diploma on the students.

The cost of the program appears high at \$23,000 per student per year payable to Dalhousie, apart from the salaries and costs of participants. The department justifies the cost by referring to the high faculty/student ratio required, and the fact that the teachers are physicians.

OPTIONS

In the Overview on Direct Education Services, it was suggested that Health and Welfare Canada has felt obligated to provide this special training to fill a service gap between two types of health professionals: doctors and nurses. Its options are: to continue providing it; to discontinue it and discover whether the service need will be perceived and met by Dalhousie or some other institution without contractual support; or to offer the training in-service. An in-service pilot project is being started.

Since only 12 graduates a year are required, it is very possible that no institution would choose to offer the program. The department did invite tenders for a replacement for the Alberta program but found no satisfactory substitute. Memorial University offers a program but this is used to meet the service needs of northern Newfoundland and Labrador.

The study team has concluded that the only realistic options are to continue the contract or to provide the training in-service.

**DIRECT EDUCATION SERVICES
(NON-INDIAN)**

CANADIAN COAST GUARD COLLEGE

TRANSPORT CANADA

DESCRIPTION

The Canadian Coast Guard College (CCGC) provides a combined academic and sea training course to educate officer cadets to become navigating or engineering officers in the Canadian Coast Guard. The program aims at producing well rounded officers who have the training needed to move into the managerial ranks of the service. The college provides a four-year program of study, following high school graduation, for Canadian cadets and both the full course, or shortened versions, to students from the West Indies brought in by arrangement with CIDA.

OBJECTIVE

To provide the Coast Guard with competent, professional, technical and managerial officers to meet its operational needs.

AUTHORITY

National Transportation Act.

HISTORY

The CCGC was founded in 1965 to meet the need for highly qualified, career-oriented marine officers. A four-year program of classroom study was developed to provide a comprehensive course in both technical and academic subjects. In 1973, the course was shortened to three years and a number of the academic courses were dropped in favour of more sea training. At that time, the college withdrew its application to the Nova Scotia government for a charter to grant degrees through affiliation with a chartered university in the light of the reduced academic load. In 1984, regulations concerning time at sea during training changed requiring an extension of the program to 45 months.

From 1965 to 1980, the average seagoing career of Coast Guard officers dropped from 13 to eight years. Projections indicated a need for 1,000 new officers during the period 1985 to 1995, a doubling of the previous level of output. An expansion of the college was approved, which will be partially completed in 1986. In the meantime, the Coast Guard's projections have been revised downwards, to an average requirement of 11 officers per year to 1995, half of which are to be provided by the CCGC.

The change was caused in part by a drop in the number of officers transferring to the private sector. Because of this, the expansion will be halted at the end of the current phase, which will provide space for 300 students. These projections do not take into account the recently announced ice breaker construction program, and the resulting need for officers. These figures assume the present low level of attrition among ships' officers will continue indefinitely. A five-year agreement to train cadets from the West Indies came into force in 1980. The agreement has been enlarged and extended for a further five years, increasing the need for spaces.

In 1985, the training program returned to a four-year course as a result of changed sea time requirements. With the return to the four-year program, the CCGC reintroduced courses in such areas as English, French, general history, and history of the Coast Guard. The Coast Guard wished its cadets to have a more academic education, not just a technical one, to provide the full range of skills needed to be a successful career officer. With the expansion, the CCGC is again approaching the Nova Scotia government to obtain university degree-granting status. The CCGC is fully bilingual and accepts both men and women as cadets.

STRUCTURE

Coast Guard cadets are enlisted by the Coast Guard. The residential and educational facilities at Sydney, N.S., are operated and staffed by CCGC. In the latest year, 56 cadets were selected; more than 14,000 requests for information had been received. Cadets completing the training receive a diploma from the college. During the four-year course they must undergo sea training to obtain navigational or engineering tickets. Cadets receive allowance, sea pay, and uniforms from the Coast Guard and room and board during their residence from MOT. Upon graduation, all cadets move to jobs in the Coast Guard fleet as junior officers.

RESOURCES

The budget of CCGC includes a large capital component for the expansion of the campus. Major construction will be completed in 1986/87.

	84/85	85/86
O&M and Salaries	\$6,418,900	\$6,593,935
Capital	<u>\$7,945,100</u>	<u>\$9,802,000</u>
TOTAL	\$14,364,000	\$16,395,935
Person-years	95	95

In 1984/85 the cost of cadet allowances was \$541,003 and sea pay was \$472,878, for a total of \$1,013,881, which was paid directly by the Coast Guard (not CCGC).

MOT recovered \$703,950 from CIDA for the special training of West Indian cadets, of which \$535,784 went to the CCGC. This is not included in the normal budget.

BENEFICIARIES

Currently, 201 cadets are enrolled at the college. The latest intake of new cadets was 56, down from previous years. Approximately 60 per cent of each new group graduates. Cadets from 16 West Indian islands have received training.

RELATED PROGRAMS

The college is similar to the military colleges, after which it has been modelled.

ASSESSMENT

The objectives of the program have recently been reviewed and clarified through an evaluation of the CCGC course of study. As a result, the curriculum is being extended and a more academic emphasis is being reintroduced. Since the aim is to produce officers capable of individual initiative in isolated circumstances, while operating within accepted standards of behaviour, this is appropriate in the view of the study team. The Coast Guard, an arm of government with extensive public and international contacts often in unusual circumstances, requires a degree

of sophistication from its officers well beyond that provided by technical training alone.

The cost of providing education to officer cadets through the CCGC is relatively high. The cost of operating the CCGC per student is about \$33,000 per year. If the students' allowances are included this rises to nearly \$36,000. Sea pay is extra.

OPTIONS

The study team recommend to the Task Force that the government consider the following:

1. The projections used by the Coast Guard to estimate the requirements in five to 10 years time are clearly unreliable and should be improved. These are outside the control of the CCGC, but have a direct impact on its resource planning, as the annual intake of cadets is directly linked to the projections.
2. It is important to the CCGC to obtain a provincial charter. The current diploma issued has no backing beyond that given by the college. Should it become necessary to find other sources of students to ensure the facilities are used to capacity, a recognized degree would have a stronger appeal.
3. Wider agreements, through CIDA, to train foreign students could be a means to use the college more fully.
4. Since students receive free room and board and uniforms while they are in residence at the CCGC their allowances should be eliminated. Sea pay would be continued.

FEDERAL INVOLVEMENT IN SCHOOL PROGRAMS

OVERVIEW

The Secretary of State and other departments run a number of programs which aim at supporting minority or second official language instruction in provincial and territorial schools or at influencing the content of school curricula to meet specific social needs. The programs have been justified on the basis of the real social concerns with which they deal.

These have led the federal government to support the development of learning materials, teacher training or actual support of the cost of educational services.

HISTORY

The federal government has become involved in provincial education because of its concerns with creating a bilingual and multicultural society, and with improving Canadians' knowledge of their country and heritage.

Support for the education of official language minorities and training in the second official language, mostly at the primary and secondary school levels, began in 1970 as a federal program response to the report of the Royal Commission on Bilingualism and Biculturalism. The twin objectives are to ensure that official language minorities have available satisfactory schooling in their own language, where numbers warrant, and to provide adequate opportunities to all Canadians to gain proficiency in their second official language through school training. The Official Languages in Education (OLE) programs are mainly funded through formal agreements with the provinces and territories; the Queen Elizabeth Silver Jubilee Endowment Fund is administered by the Association of Universities and Colleges of Canada (AUCC) and operates only at the post-secondary level.

The multiculturalism policy of 1971 led to the establishment of programs to promote education which "reflects and embodies the cultural diversity of Canadian society." The Cultural Enrichment Program provides assistance to teaching and researching languages other than the official ones, and support to groups or associations promoting the use of multicultural materials and course content in the classroom, the development and publication of

curriculum materials, the professional development and training of teachers, and information exchange between school transfers. The Ethnic Studies Program supports research on ethnicity in Canada, helps endow chairs for ethnic studies at Canadian universities, and has developed a series of ethnic histories, Generations, which has led to a series of mini-histories by the Canadian Historical Society, for classroom use. The ultimate goal is to provide an education which will engender mutual respect and understanding among all segments of Canadian society.

The multicultural programs directly support individuals and non-governmental groups with the aim of influencing the curriculum content and material used in classrooms. Most recently these programs have given priority to the development of materials dealing with race relations. The particular problems of racial minority children in education and the development of understanding and tolerance amongst young Canadians are of particular concern.

In 1984, a national conference on multiculturalism in education was attended by some 700 educators and school trustees and addressed by the Chairman of the Council of Ministers of Education who stressed the need for a continuing national effort.

Federal support for the Canadian Studies program began in the late 1970s, through core grants to groups promoting the teaching of Canadian Studies at all levels of the educational system. In 1984, a series of programs were introduced to support the development of curriculum material and improved teaching methods and to honour excellence in the teaching of Canadian Studies; core funding continued. The goal is to improve the Canadian Studies content in school curricula.

PROGRAM

The programs included under this theme are:

- Official Languages in Education;
- Queen Elizabeth Silver Jubilee Endowment Fund;
- The Multiculturalism Programs; and
- The Canadian Studies Program.

All these activities are funded through the Department of the Secretary of State.

RELATED PROGRAMS

A number of federal programs influence the curriculum content of Canadian schools. Research for the development of learning materials is supported by the Social Sciences and Humanities Research Council (SSHRC). Production of learning materials is also supported by such organizations as the National Film Board, the Public Archives and the National Museums of Canada. The departments of the Solicitor General, Parks Canada, Health and Welfare Canada, and numerous other departments and agencies have activities which on occasion or on a continuing basis develop curriculum packages for use in elementary and secondary schools.

ASSESSMENT

The study team notes that, while the Constitution Act, 1867, assigns responsibility for education to the provinces, the federal government has become involved in the field over the years. In some cases the federal programs have created tensions in federal/provincial relations.

We conclude that the federal government should only maintain involvement in specific educational programs that meet the following criteria:

- a. There exists a national commitment to the objectives of the involvement.
- b. The current or proposed federal involvement is accepted by the provinces.
- c. The national commitment is expressed in an explicit policy.

A federal role does not exist when the provision of services and materials is justified solely on the basis of educational issues. A reasonable test of these criteria would be the willingness of the provinces to accept federal involvement.

In the case of the Official Languages in Education program (OLE), federal/provincial accords exist which are mutually satisfactory and which clearly meet the criteria established by the study team. These are the result of a long series of negotiations arising from an earlier period of disagreement. They provide a model for federal/

provincial relations in areas of attempted federal involvement in the establishing of provincial educational priorities.

Multiculturalism as a national policy has been endorsed by all provinces. To date the Multiculturalism Directorate's efforts to promote principles of respect and understanding of the nation's ethnic and racial diversity, through direct support to parent groups, educational institutions, trustees and teachers associations has not met with resistance from the provinces. There are several examples of federal/provincial cooperation, albeit of an informal nature. The multiculturalism programs, therefore, satisfy the study team's criteria in part.

Until recently, the Canadian Studies Program was primarily concerned with promoting Canadian studies within the universities and colleges. Its more recent efforts to support curriculum development within secondary and elementary schools have resulted in resistance from some provinces, and the statement from one that the program as it operates now is incapable of influencing school curricula. The Canadian Studies Program does not meet any of the criteria.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. The federal government in its negotiations to continue the OLE programs after 1988, should move to separate support for Official Language Minority Schooling from Second Official Language Instruction so as to allow for a phasing out of the latter as provinces take fuller responsibility for second official language instruction.
2. The multiculturalism programs should be continued on the basis of formal consultation with the provinces, which should, to the extent possible, include agreements for matching funding and increased cooperation.
3. The Canadian Studies program should cease all operations.
4. The SSHRC should be charged with administering the research support portions of the multiculturalism programs, in accordance with the option in the paper on research.

FEDERAL INVOLVEMENT IN SCHOOL PROGRAMS

CANADIAN STUDIES PROGRAM

SECRETARY OF STATE

DESCRIPTION

Canadian Studies consists of teaching or research in any field that promotes knowledge of Canada by dealing with aspects of Canada's culture, social conditions, physical setting or place in the world. The Canadian Studies Program supports individuals, groups, national non-governmental organizations, private sector corporations and, through joint venturing, other federal government agencies to develop classroom learning materials and improved teaching methods, at all levels in the education system. Prizes are awarded for excellence in teaching Canadian Studies.

OBJECTIVES

The objectives of the Canadian Studies Program are:

- a. to develop and encourage the use of learning materials in a number of specified content areas at all levels in the education system;
- b. to increase the public's knowledge of Canada;
- c. to increase Canadians' capacity to develop new knowledge about Canada; and
- d. to encourage teachers to use Canadian materials.

AUTHORITY

The Appropriations Act.

HISTORY

Canadian Studies activities at Secretary of State began in 1978 as a three-year, \$1.6 million pilot project, which supported the efforts of three national organizations, the Association for Canadian Studies, the Association of Canadian Community Colleges and the Canada Studies Foundation. A National Program of Support for Canadian Studies was approved in 1981, with a three-year budget of

\$3.8 million, which continued core support and added ad hoc arrangements for grants to projects.

Continued concern about Canadians' lack of knowledge of and interest in our history, culture and society, led the Secretary of State to propose a structured expansion beyond the support of three national voluntary organizations. The Canadian Studies Program (CSP), comprising 10 categories of support for learning materials, promotion of teaching and voluntary activities, and encouraging private sector involvement, was approved by Cabinet in 1984/85, with an annual, ongoing budget of \$3.7 million. An additional one-time item of \$2.4 million was approved for two years for the purchase and distribution costs of 27,500 sets of the Canadian Encyclopedia to federal departments, the Gift Bank, Canadian missions abroad and French immersion schools. The CSP has jointly funded, with the Centres of Specialization program, Horizon Canada, a popular magazine history of Canada to be distributed through local stores, at a cost of \$2.6 million to the program, over four years.

The CSP has concentrated on the development of learning materials and the promotion of the teaching of Canadian Studies in schools, colleges and universities. It also has a mandate to provide coherence to the overall federal effort in Canadian Studies. No budget allocation is made in advance among the 10 categories; funds are expended as approved.

RESOURCES (\$000s)

	83/84	84/85	85/86
TOTAL	1,800	3,700	4,900
Person-years	3	10	10

The resources in 1985/86 include \$1.2 million for the purchase of sets of the Canadian Encyclopedia.

BENEFICIARIES

In 1984/85, the following categories of beneficiaries received support:

- a. 37 private sector corporations and organizations which promote Canadian studies and the development of learning materials;

- b. four federal agencies which joint venture with the CSP on specific projects; and
- c. 21 individuals and teams.

STRUCTURE

Applications and nominations for programs are made on standard forms which are distributed within the Canadian Studies academic and publishing communities. Except for the small prizes category, recommendations are made by the Director of the CSP and passed through the Under Secretary of State to the minister for approval. Recommendations may be based on evaluations received from assessors, paid at \$50 per evaluation, drawn from an inventory maintained by the CSP; their views are not binding. Prizes, which total \$25,000 for five each year, are awarded by a selection committee which has delegated authority.

Core support to national organizations is made through unconditional grants. Project support is provided through accountable contributions, or, in the case of joint ventures with other federal organizations, such as NFB or Public Archives, through contracts.

RELATED PROGRAMS

Programs supporting various aspects of Canadian Studies activities exist at External Affairs (Canadian Studies Abroad), the Social Sciences and Humanities Research Council, the National Film Board, National Museums, Department of Communications, the National Library, Public Archives and the Canada Council, as well as in other sectors of Secretary of State.

While the Secretary of State was made lead agency for Canadian Studies, its coordination role has been given low priority to date. In 1986/87, the CSP plans to hold meetings to exchange information on current and planned activities and is currently preparing a directory of programs of the federal and provincial governments, universities and colleges, and foundations.

ASSESSMENT

Because the CSP has attempted to fill gaps in programs of other departments and agencies, the objectives of these small-scale activities are varied and not closely related.

This diversity has led the CSP to attempt to increase its influence through joint venturing and matching funding, although in a totally responsive program these tactics may reduce its control over its own funds. Further, its project support is given to beneficiaries who are also supported by one or more programs run by other federal organizations (e.g. publishing costs for textbooks are treated as project costs by CSP, while DOC provides block grants to publishers).

In the study team's view, the coordination function is complicated by the small scale of CSP activities in comparison to other programs related to Canadian Studies in the rest of the federal government. Most of the latter are not labelled as Canadian Studies; they are the basic components of these agencies' mandates, their *raison-d'être*. Moreover, the CSP does not cover the entire area of Canadian Studies as laid out in its own definition. Only if its activities are taken together with those of Multiculturalism, Citizenship and Official Languages programs of the Secretary of State is this definition fulfilled.

The CSP is a recent addition to Secretary of State programs, but one that has already generated provincial disagreement. Its attempts to influence the development of school curricula through core funding of national organizations and grants for the development of learning materials are at the heart of the criticism. Some apparent duplication of other federal agencies has accentuated the perception by the provinces of federal interference.

The CSP provides the only major core support for the promotion of Canadian Studies by national organizations at the elementary, secondary and post-secondary levels.

The program's prizes and awards provide the sole federal recognition of the need to develop written materials and advanced teaching methods in Canadian Studies.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. The CSP could continue as presently constituted. This option would do nothing to reduce provincial antipathy; in fact, CSP efforts to coordinate Canadian Studies activities in the federal domain

could well render federal/provincial relations more difficult. The CSP does not meet the criteria established by the study team for legitimate federal involvement in school programs.

2. (Preferred) Abolish the CSP. Since it does not meet the study team's criteria, there is no clear justification for its continued operation. As it stands, the CSP would remain an irritant to the provinces. To help ease the shock of termination of support, it could provide a one-time payment to each association now receiving core funding.
3. The CSP could move to reach agreements with the provinces on the scope and direction of its activities. Unless it ceased operations during the period of negotiations, however, it would continue to cause difficulties with the provinces. Given the small size of its programs, it is unlikely the provinces would give such negotiations priority.

FEDERAL INVOLVEMENT IN SCHOOL PROGRAMS

CANADIAN ETHNIC STUDIES PROGRAM MULTICULTURALISM SECTOR

SECRETARY OF STATE

DESCRIPTION

The Canadian Ethnic Studies Program:

1. supports research by individuals and teams aimed at creating a better understanding of Canada's pluralistic character and the causes underlying specific problems related to this;
2. endows universities' research chairs which promote research on specific ethnic communities;
3. commissions histories of ethnic communities in Canada; and,
4. encourages the development of curriculum materials and educational practices that promote understanding, respect and equity among young Canadians.

OBJECTIVE

To support research, particularly of a multidisciplinary nature, and the production of learning materials and publications leading to greater knowledge of cultural and racial minorities in Canada, the expression of their heritage and contributions, and fostering sensitivity and respect among Canadians.

AUTHORITY

The Appropriations Act.

HISTORY

The Canadian Ethnic Studies Program, in 1972, began awarding grants to individuals and teams of researchers, usually from universities, to study specific ethnic groups or more general problems facing members of such groups within Canadian society. Grants were extended to 85

research projects in ethnic studies between 1978 and 1984. In 1984, a program of fellowships to junior and senior researchers was launched to promote the development of ethnic studies. Approximately six are offered annually.

The endowed chairs of study are devoted to the study of individual ethnic groups in Canadian society, and of more general themes such as immigration history, ethnic studies or multiculturalism. Up to 1985, nine chairs had been established at Canadian universities through the joint aid of community groups and the Multiculturalism Branch for work on individual groups. The program is now being oriented to support chairs devoted to general themes.

The Ethnic History Project started in 1973. Authors were commissioned to write the histories of 20 ethnic groups in Canada for a governmental series entitled Generations. Thirteen volumes have been published and a series of mini-histories of ethnic groups in Canada have been developed for classroom and general use.

In 1981, a national conference was organized in Winnipeg to introduce new programs to promote the use of learning materials that reflect Canada's multicultural nature to teachers federations, publishers, community groups, provincial government officials and individual researchers. The aim of this activity was to ensure greater use of textbooks, mini-histories, audio-visual materials, etc. much of it developed through other multiculturalism programs, within Canadian schools at all levels. The programs provide funds to groups working on curriculum change, to publishers producing learning materials, to researchers creating new materials, and to groups coordinating activities across the country.

STRUCTURE

The Canadian Ethnic Studies Program invites applications for research grants and fellowships. Priority is given to work on race relations, multiculturalism in education and immigrant women. Applications are reviewed by an internal committee and an academic review committee. Grant notices are sent to the minister for approval.

Endowment assistance requires an approach from a community group willing to invest at least 50 per cent of the funding required for a chair. The department will invest a further amount matching the group's contribution,

up to a maximum of \$500,000. One chair will be funded each year, if there are qualified applications. Contribution agreements with the host universities provide for institutional autonomy and stipulate performance criteria; these are maintained by an advisory board including members from the founding groups.

The Ethnic History Project is assisted by an advisory panel, which includes two editors of the Generations series.

RESOURCES (\$000s)

	84/85	85/86
Grants and Contributions	2,268	2,315
O&M and Salaries	49	77
TOTAL	2,318	2,392
Person-years	4	4

BENEFICIARIES

From 1979 to 1985, approximately 90 academic researchers received support from the Canadian Ethnic Studies program. Eight universities have obtained nine chairs of studies, four in the Maritime provinces, three in Ontario and one in Manitoba. Twenty commissions were awarded mostly by academics to researchers, to write histories for the Ethnic Histories project.

RELATED PROGRAMS

The research support and fellowships are similar to these offered through the Social Sciences and Humanities Research Council (SSHRC); many of the same individuals are eligible to receive aid from these sources. The endowment of chairs of study parallels the program run by the Women's program at Secretary of State. The Ethnic Histories project appears unique, as does the Multiculturalism in Education initiative.

ASSESSMENT

In the view of the study team, there is no obvious division between research projects which could be supported by the research activity of the program or by the SSHRC. The same researchers appear on the lists of grant holders of

both agencies. While this does not necessarily mean there is duplication of funding, it does show a considerable overlap in the type of work supported. SSHRC already provides extensive support to Canadian studies research. It would be more efficient for it to be charged with supporting Canadian ethnic studies as well.

The policy of requiring matching funding for endowments to establish chairs of study is sensible because of the high upfront costs involved, now about \$1.1 million. This policy, in the study team's view, should be maintained if funding of chairs is to continue. It means the program must remain responsive, however, and cannot necessarily expend funds in a given year.

The endowing of chairs by direct agreement with universities, without prior consultation with the provinces may give rise to problems in the future. The existence of a chair may affect the university's priorities in a way contrary to provincial plans. There is a skewed distribution of chairs across the country, with more in Quebec and west of Manitoba. An endowed chair remains in place indefinitely so such imbalanced distribution will also continue indefinitely.

In the study team's opinion, there do not appear to be sufficient performance criteria by which to judge the success of the chairs. The raising of funds could outweigh research and academic criteria especially in the absence of funding for specified research aims. Once the chair is established little effective control can be exercised in the face of university autonomy.

The move to fund thematic chairs for research on generic problems facing members of all ethnic communities, such as discrimination or retention of heritage languages, is an attempt to deal with such problems. It does not resolve those related to provincial priorities, geographical distribution, university autonomy or the lack of tied money for research activity and it may make the raising of matching funds more difficult. Unless these problems can be overcome it would be more effective and less expensive in the study team's view to support research on such generic questions through research grants, preferably administered by the SSHRC.

The Ethnic History Project has produced a valuable body of work on ethnic groups in Canada. However, the study team believes it could be brought to a conclusion. Further

histories could be funded through the SSHRC, which not only gives grants for research, but also for editorial projects in both languages and for publication of scholarly manuscripts.

The Multiculturalism Education initiative has successfully established a working relationship with provinces and community groups on multiculturalism in education through the Canadian Council for Multicultural and Intercultural Education. This provides an effective instrument for ensuring Canadian students are exposed to a more balanced and culturally sensitive curriculum and to such important topics as race relations, cultural adaptability, and divergent cultural and religious heritages. The program should, the study team suggests, move to a more direct relationship with the provinces to avoid building an atmosphere of conflict, which could emerge if they continue to influence provincial educational policies indirectly through community groups.

During the study team's visits, several provinces raised concerns about federal programs which influence the structure and priorities of universities, without having direct provincial involvement. Greater sensitivity to provincial concerns is clearly needed when departments administer targeted research programs and support university infrastructure, especially if the research has, as one goal, to provide learning materials for schools. While the Multiculturalism Sector research activities do not seem to have generated problems with the provinces to date, this may become a matter of greater concern as chairs are proposed for other provinces, and groups, supported by other sector programs, push the provinces to use learning materials generated by the research.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Maintain the status quo. It would not take into account the likelihood of friction with certain provinces. It would continue funding targeted research, which to an extent duplicates SSHRC funding. Chairs would continue to be established on a matching fund basis, initially focussed on individual ethnic groups, and later on generic problems in Canadian society, without improved criteria to judge performance.

2. The Multiculturalism Sector could move to coordinate its activities more with the provinces. While this would add another level of screening, it would ensure a better chance of success for funded research and chairs because they would fit clearly within institutional priorities. It would not end duplication of effort.
3. (Preferred) The research activities of the Multiculturalism Sector move to the SSHRC. The council would then be directed to target support to multicultural research, in consultation with the sector and the provinces.

This option would combine the advantages of targeted funding to achieve results, with the SSHRC's expertise on the university research systems. Provincial concerns would also be handled. The reduced duplication should result in some reduction in the total requirement for staff.

4. Regardless of which option is selected the study team suggests that the endowing of Chairs of Ethnic Studies cease immediately.

FEDERAL INVOLVEMENT IN SCHOOL PROGRAMS

CULTURAL ENRICHMENT PROGRAMS MULTICULTURALISM SECTOR

SECRETARY OF STATE

DESCRIPTION

Cultural Enrichment Programs (CEP) provide support to community groups which provide education in heritage languages other than Canada's official languages. The grants given to these groups are used to fund schools that operate outside of regular school hours.

OBJECTIVES

To provide ongoing teaching in heritage languages to preserve their use in Canada.

AUTHORITY

The Appropriations Act.

HISTORY

Since the late 1970s the Heritage Language Support Program has funded after-hours educational courses in heritage languages sponsored by community groups. Funds go directly to the group providing the courses. Most provinces, through their own educational systems, provide similar instruction within the school curriculum.

STRUCTURE

Grants and contributions are provided to groups promoting the teaching of heritage languages.

RESOURCES (\$000s)

	83/84	84/85	85/86
Grants and Contributions	4,000	4,000	4,100
Person-years	3	3	3

The O&M and salary costs in 1984/85 were \$190,000.

BENEFICIARIES

Approximately 120,000 elementary school students take heritage language courses through the 930 organizations receiving support.

RELATED PROGRAMS

The Official Languages in Education Program of the Secretary of State provides support for language classes within the school systems of the provinces and territories.

ASSESSMENT

CEP supports heritage language activities which are paralleled through the school systems in most provinces. Rather than working exclusively through community groups to support out-of-hours classes in heritage languages, CEP could work through the provinces for major minority groups. According to CEP, language instruction within the school curriculum is more effective. CEP has funded community groups which exerted pressure on the provinces to change their educational programs. To an increasing extent this has succeeded. However, in the study team's view, continuing such funding to major groups will lead to friction between CEP and provinces subjected to community group pressure.

The development and management of heritage language classes serve as an important focus for many cultural minority communities.

The funding of an institute of Heritage Languages, located in the Ontario Institute of Studies in Education, represents a significant effort to upgrade the quality of teaching and the development of Canadian curriculum materials.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. CEP should move as quickly as possible to conclude formal agreements with the provinces on the extent of their mutual responsibilities.
2. CEP should cease funding groups for courses which duplicate those offered by a province.

FEDERAL INVOLVEMENT IN SCHOOL PROGRAMS

OFFICIAL LANGUAGES IN EDUCATION

SECRETARY OF STATE

DESCRIPTION

Official Languages in Education programs (OLE) provide direct payments to provinces and territories to cover the marginal costs associated with second official language instruction and the education of official language minorities in their mother tongue at all levels in the educational system, together with the costs of bursaries and monitorships, administered by the provinces and the Council of Ministers of Education.

OBJECTIVES

The objectives of the Official Languages in Education program are:

To promote, encourage and assist the development and provision of education in the language of the official language minority community of each province and territory and to provide opportunities for Canadians to learn their second official language.

AUTHORITY

Article 4(a) of the Secretary of State Act gives the Secretary of State powers over all questions relating to citizenship.

HISTORY

The OLE programs started in 1970 as part of the federal response to the report of the Bilingualism and Biculturalism Commission. The federal involvement was based on the perception, at that time, that spurring the teaching of the second official language and ensuring official language minority schooling were national priorities meriting a federal initiative.

An initial set of agreements was reached with the provinces in 1970. The latest protocol was signed with the Council of Ministers of Education in 1983 and extended to 1988 in September 1985. OLE initially paid a percentage of costs for instructional programs based on enrolment and provincial education costs and, through a series of non-formula programs, for specific initiatives. In 1979, it was found necessary to put a cap on expenditures and reduce them by approximately 20 per cent. Now the budgetary level is set and the federal government pays per student contributions in the Infrastructure Support expenditure category. Specific initiatives for program expansion and development as well as teacher and student bursaries are also funded.

The marginal cost of teaching the second official language and providing schooling to minorities in their first official language in 1984/85 took \$156 million of the \$188 million transferred to the provinces and territories. National programs for summer course bursaries and language monitorships run by the Council of Ministers of Education cost another \$14 million. Other grants categories help provinces defray development costs, covering from 50 to 75 per cent and for the territories up to 100 per cent. Teacher and student bursaries are paid on a 100 per cent basis. School and community centres at Fredericton, Saint John and Miramichi received federal contributions towards their construction.

The current agreement with the provinces requires an accounting for the sums transferred because of earlier complaints that monies were not always being spent on language instruction. The provinces can choose whether to receive funds through the basic program or through negotiation based on their actual expenses. The territories receive their funding through the negotiation option. Four provinces have chosen the latter, but recent budgeting restrictions have limited the extent to which OLE can adjust payments to levels of activities in the individual provinces.

The major part of the funds are distributed to provinces based on actual enrolments in programs. Because of the large official language minority school system in Quebec, that province received 45 per cent of the \$188 million transferred to provinces in 1984/85. Ontario received 26 per cent and New Brunswick obtained 14 per cent. The other provinces and the territories received 14 per cent.

The Language Acquisition Development Program (budget \$892,000 for 1985/86) gives contributions directly to associations or institutions for national projects aiming at the diffusion of information or improvement of means, techniques of teaching and learning of official languages. The program is not part of the protocol but acts as a complement to the bilateral agreements.

STRUCTURE

Within the terms of the federal-provincial protocol on minority language education and second language instruction, the federal government makes bilateral agreements with the provinces to provide contributions either on the basis of the basic program option or a negotiation option. The basic program option gives a province: a) a contribution for infrastructure support, based on enrolment, and b) a complementary contribution for agreed-upon programs and activities, for an amount not less than the minimum contribution established for each province in the protocol. A province selecting the negotiation option receives contributions based on that province's demonstration of its expenditures on official language education, also subject to the minimum level of support laid out in the protocol.

The OLE is not a cost-sharing program covering an agreed share of audited costs. Rather, it provides a defined amount subject only to demonstration by a province that it has incurred costs for the purposes specified in the annual agreement. The costs are expected to be the marginal addition required to provide education in the minority's first official language or to provide instruction in the second official language.

Funds provided for the national Summer Language Bursary and Official Language Monitor programs administered by the Council of Ministers of Education (CMEC) are paid to the council each year on the basis of a contractual agreement between the Secretary of State and the CMEC Secretariat.

Payments for the basic contributions are made quarterly; payments for the complementary contributions are made biannually. The payments are conditional upon an accounting for the province's expenditures on minority language education and second official language instruction for the previous year.

RESOURCES (\$000s)

	83/84	84/85	85/86
TOTAL	194,700	203,700	213,500
Person-years	23	23	23

BENEFICIARIES

The ten provinces and two territories administer the major portion of the funding. The Council of Ministers of Education, 14 associations and four universities are involved in program delivery. About 85 per cent of expenditures are for elementary and secondary school level programs. Approximately 7,000 summer language bursaries and 1,200 monitorships were awarded in 1985/86.

The table below presents the maximum approved contributions to provinces and territories over the past three years.

(\$000s)	82/83	83/84	84/85
Newfoundland	1,707	2,122	2,434
Prince Edward Island	951	994	1,203
Nova Scotia	3,650	3,904	3,976
New Brunswick	16,193	20,801	23,152
Quebec	80,622	85,572	83,508
Ontario	48,584	45,278	47,751
Manitoba	5,837	5,822	6,074
Saskatchewan	2,143	2,340	2,913
Alberta	5,667	5,182	6,226
British Columbia	5,978	5,948	7,160
Yukon	175	190	560
Northwest Territories	120	180	268
TOTAL	171,627	178,331	185,225

RELATED PROGRAMS

Openhouse Canada, run by the Citizenship Branch of Secretary of State, pays for travel to other provinces by students 14 or older. Under the OLE agreements exchanges for students under 14 are paid for on a 50-per-cent basis.

The Official Languages Promotion Program of Secretary of State directly supports voluntary groups for representational activities.

ASSESSMENT

In the view of the study team, OLE is an example of successful federal involvement in an area of provincial responsibility with the concurrence of the provinces. The existing protocol can, however, be seen as a compromise to eliminate the disagreements that existed before its adoption. As such it contains a number of points on which neither the federal government nor all provinces agree.

The study team sees the following issues as being important to future federal-provincial negotiations for a new OLE protocol for the period following 1988:

- a. the priority given to support of official language minorities schooling in their mother tongue, as opposed to instruction in the second official language;
- b. the division of support between development and infrastructure;
- c. the requirement for continued federal funding as opposed to increased assumption of responsibility for support by the provinces; and
- d. the need to tailor the OLE program to the individual needs of each province and territory.

The study team believes that the current protocol does not give clear priority to either official language minority schooling or to second language instruction, nor does the block funding arrangement differentiate between the funding of the two. This runs contrary to the general acceptance that OLE was founded and should continue to operate primarily to ensure official language minorities schooling in their mother tongue.

Most of the funds, nearly 90 per cent, currently go for infrastructure support, which favours those provinces with well-established official language minority instruction.

The current protocol allows for greater flexibility, but it would only be available in conjunction with greater federal investment of funds.

The Constitution Act guarantees the right of official language minority groups to schooling in their mother tongue "where numbers warrant". It is up to the provinces and territories to establish the lower limit at which numbers warrant. The current protocol runs to 1988; after that there is no agreement on continued federal funding. A decision on continued funding would require a review of the extent of provincial support available. The study team perceives a greater certainty of provinces supporting second official language instruction, in part because of parental pressure for more provision of immersion courses. Second language instruction is also more of an educational question, and therefore, less an area justifying federal involvement.

It became apparent to the study team through visits to the provinces and territories that the existing protocol does not sufficiently reflect differences of need among these jurisdictions. Some provinces have large official language minorities in their own schools and well-developed programs for second language instruction in the schools for their official language majority; they would prefer greater support to infrastructure costs. Some have greater need for support of official language minority schooling and wish priority to be placed on it in any new protocol. Some need to develop their systems further, and would rather have access to greater amounts of discretionary, developmental funding. The territories have observer status at CMEC and worry that their concerns are inadequately represented. New Brunswick wishes its special status, having two ministries of education based on the two official languages, to be taken into account.

The programs administered by CMEC, summer bursaries and monitorships, are generally well regarded by the provinces. The exception is British Columbia which would rather the criteria for admissibility were looser, to allow for greater participation by those in B.C. The objectives are clear, however, and the programs are tailored to meet these objectives.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. OLE and the CMEC program could continue in their current form, subject to negotiations to extend the existing arrangements to 1993; any funding after that date would be subject to a thorough review. This option takes into account the current general harmony in federal-provincial relations on OLE. However, the issues identified by the study team would not be addressed and thus difficulties with the protocol, which are becoming more apparent would not be removed.
2. The federal government could announce it is withdrawing from the OLE programs at the end of the current agreement. This would assume that the provinces and territories are now ready to assume full responsibility for funding official language minorities schooling and second official language instruction, together, perhaps, with the CMEC-operated programs. The study team sees no evidence that they are prepared to do so. Therefore, federal withdrawal would likely mean a reduction in expenditures on all such programs, and, especially, less access to official language minorities schooling. Moreover, the lack of notice could upset the provinces. This option does not take into account the fact that OLE satisfies all the criteria established by the study team for legitimate federal involvement in school programs.
3. (Preferred) In negotiations to renew the protocol in 1988, the OLE programs could be separated into two distinct parts: a) education of official languages minorities in their mother tongue; and b) second official language instruction. The federal government would maintain its commitment

to the maintenance of support for official language minorities schooling on the bases of enrolment and provincial expenditures. Support to second official language instruction would be gradually reduced and the provinces could assume responsibility for their own second language instruction systems within their regular programs. The summer bursary and monitorship programs administered by CMEC could be funded to the extent that they meet the primary priority of official language minorities schooling. Any new protocol should recognize the individual needs of each province and territory.

STUDENT AID

OVERVIEW

Student aid has traditionally played a major role in both federal and provincial government support for post-secondary education. In recent years, however, the relationship between student and tuition costs and government financing of post-secondary institutions has become increasingly complex.

HISTORY

Whereas the university was once regarded as the place where one obtained a general education in preparation for assuming one's role as a member of the governing class, or of the few so-called learned professions (law, medicine, theology), university preparation is now a condition of entry into literally dozens of professions or quasi-professional activities.

In the 1960s, the post-war baby boom generation swelled the ranks of the university-age segment of the population. In addition, universities were seen by an increasing number of groups within society as the path to social and economic success, and by many, caught up in the post-Sputnik enthusiasm for science and technology, as the source of solutions to pressing social problems. Thus, the proportion of high school leavers seeking admission to university doubled. The compounding of the increase in segment size and university participation rate produced a tripling in enrolments.

Rapid advances in knowledge increased both the scope and sophistication of the subject matter which universities were required to offer. Social developments also had their impact on what came to be expected of Canadian universities, in such areas as Canadian studies, women's studies, and Native studies. Shifts in employment from primary manufacturing and agriculture to knowledge-based service industries increased the demand for part-time, recurrent and continuing education among those seeking to adapt themselves to the new economic reality.

In the midst of these changes in the early 1960s, the federal government became involved in providing financial assistance to post-secondary students.

PROGRAMS

The Canada Student Loans Plan (CSLP) and summer employment programs are, within the federal government, aimed at providing financial assistance to students. In 1984/85, the Canada Student Loans Plan accounted for \$229 million and summer employment programs for \$205 million. Authorization of loans under the CSLP is administered on a fee basis by the provinces who also administer their own student assistance plans, combining them with the CSLP in an aid mix.

There also exist other federal programs designed to give financial assistance to certain target groups of students such as Natives and children of veterans. These persons are also eligible under the CSLP but their specific programs are more advantageous than this latter one. Persons are ineligible to continue receiving benefits from unemployment insurance upon registering in a study program.

RELATED ACTIVITIES

Other federal programs also provide financial assistance to students, notably the granting councils' scholarship programs as well as research contracts awarded by federal government departments to universities, and individual research grants. A significant portion of these sums is used to pay for the assistantships and salaries of students involved in research support activities. This system must be maintained since it allows university researchers to assemble research teams of graduate students paid from these funds. The recruitment and training of young researchers often take place at this level. Moreover, this system facilitates an exchange of ideas between departments and universities which benefits both parties.

With respect to student assistance, one must distinguish between loans and bursaries. The CSLP is a loan program, whereas other programs provide bursaries to students. One must also consider the distinction between tuition fees and living expenses. Tuition fees have been kept relatively low (See Annexes 1 and 2). On the other hand, living expenses have increased considerably.

ASSESSMENT

Since higher education benefits are of both a private and a social nature, the share of costs borne by students is

essentially a question of values. Those in favour of abolishing student fees bring forth a certain number of arguments to bolster their position: simplification of administrative procedures, social justice and the opinion that society is the unique beneficiary of post-secondary education. Those with an opposing view hold that students are the prime beneficiaries of their education and, therefore, it is but logical that they should assume the total cost of their education.

Considering the latter opinion, to secure better equity, should fee levels differ much more widely by program than at present? Supporting this is the observation that the programs that can be expected to have the highest long-term financial payoff (e.g. medical training) are precisely those for which the student contributes the lowest percentage of the costs. In the view of the study team, whatever the merits of this option, it is evident that fee differentials would increase sharply under any scheme that sought to relate or match them to program costs. If the students were expected to pay a higher proportion of costs, all fees would rise considerably. Either way, complementary changes in student aid programs would have to be introduced. Choosing a position between these two poles can only be by political decision.

Many factors influence decisions to participate in university study. They may be grouped into three categories: availability, eligibility and motivation. Availability is dependent upon the provision of adequate financial resources to individuals and the number and location of institutions. Eligibility is determined by success in prior schooling and the application of formal admission criteria established by universities. Motivation is determined by individual psychosocial and cultural factors.

Is it really true that financial barriers to university attendance are important at current fee levels? To the extent that they are, are fee reductions a more efficient way of eliminating those barriers than the improvement of student aid packages? Although family income levels among university students are above the social average, non-financial factors -- parental encouragement, school grades, and the student's self-confidence -- have been demonstrated to be more significant determinants of educational attainment than financial factors. Attrition in the high schools is substantial, and the make-up of the matriculating class closely approximates that of the university entrance population. This indicates that

selection has taken place prior to the point at which accurate estimates of the costs of university attendance could figure seriously in young people's plans to continue their education through to university.

This is not to say "Money does not matter". Obviously, it does. For one thing, high school students frequently hold exaggerated ideas of university tuition charges, but more important than this is the financial burden of income foregone, particularly in low-income families with several children, where the older ones must frequently leave school in order to support themselves or contribute to family incomes. Furthermore, an all-loan program is not a solution for this particular group. There is ample sociological evidence that reveals the unwillingness of young people or families, particularly from lower income levels, to assume long-term debt.

The evident importance of these factors cannot be addressed by making changes in tuition fees, but in the study team's view requires a much more far-reaching set of policies including better counselling in the schools and financial assistance to low-income families with children in high school, as well as to the minority who proceed to university.

In making policy decisions, the public authority has to consider the inter-relation which is to prevail among the tuition fee levels, the student aid packages, and the total amount of public financial support for post-secondary education.

CONCLUSION

Notwithstanding the number of options being considered for student aid, the study team believes the following principles should be respected:

- a. equality of access for all intended beneficiaries;
- b. appropriate accountability for public expenditures; and,
- c. appropriate recognition of the contribution made by different levels of government.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. (Preferred) Leave student aid entirely to the provinces and territories, but provide them with a grant for financial support of their student aid.
2. Maintain the present federal provincial form of student aid, but minimize or eliminate the defects outlined in the assessment note on the Canada Student Loans Plan.
3. Terminate the Canada Student Loans Plan and introduce in its place a refundable tax credit for students.

Tuition Fees(1) for Full-time Students at Canadian Universities, 1984-85 and 1985-86

		Undergraduate - 1er cycle					
Province and institution		Agriculture		Architecture		Arts	
Province et établissement		Agriculture		Architecture		Arts	
		1984-85	1985-86	1984-85	1985-86	1984-85	1985-86
No.							
Newfoundland - Terre-Neuve							
1	Memorial University of Newfoundland	-	-	-	-	936	982
Prince Edward Island - Île-du-Prince-Édouard							
2	Prince Edward Island, University of	1,270 (2)	1,350 (2)	1,270 (3)	1,350 (3)	1,270	1,350
Nova Scotia - Nouvelle-Écosse							
3	Acadia University	-	-	-	-	1,375	1,460
4	Cape Breton, University College of	-	-	-	-	1,370	1,438
5	Dalhousie University	-	-	-	-	1,410	1,466
6	King's College, University of	-	-	-	-	1,415-1,450	1,471-1,510
7	Mount Saint Vincent University	-	-	-	-	1,375	1,460
8	Nova Scotia Agricultural College	1,000	1,050	-	-	-	-
9	Nova Scotia College of Art and Design	-	-	-	-	1,550	1,605
10	Sainte-Anne, Université	-	-	-	-	1,325	1,405
11	St. Francis Xavier University	1,390	1,470	-	-	1,390	1,470
12	Saint Mary's University	-	-	-	-	1,470	1,562
13	Technical University of Nova Scotia	-	-	2,048	2,160	-	-
New Brunswick - Nouveau-Brunswick							
14	Moncton, Université de	-	-	-	-	1,125	1,310
15	Mount Allison University	-	-	-	-	1,355	1,470
16	New Brunswick, University of	-	-	-	-	1,325	1,400
17	St. Thomas University	-	-	-	-	1,190	1,290
Québec							
18	Bishop's University	-	-	-	-	720	730
19	Concordia University	-	-	-	-	450	450
20	Laval, Université	500	500	500	500	450	450
21	McGill University	570	570	570	570	570	570
22	Montréal, Université de	-	-	590	590	540	540
23	Québec, Université du	-	-	500	500	500	500
24	Sherbrooke, Université de	-	-	-	-	470	470
Ontario							
25	Brock University	-	-	-	-	1,218	1,275
26	Carleton University	-	-	1,256	1,319	1,156	1,214
27	Collège dominicain de philosophie et de théologie	-	-	-	-	882	936
28	Guelph, University of	1,156	1,214	1,166	1,224	1,124	1,180
29	Lakehead University	-	-	-	-	1,155	1,213
30	Laurentian University of Sudbury - Laurentienne de Sudbury, Université	-	-	-	-	1,157	1,215
31	McMaster University	-	-	-	-	1,155	1,214
32	Ottawa, Université d' - Ottawa, University of	-	-	-	-	1,259	1,324
33	Queen's University	-	-	-	-	1,156	1,215
34	Ryerson Polytechnical Institute	-	-	834	878	834	878
35	Toronto, University of	-	-	1,257	1,320	232 (5)	243 (5)
36	Trent University	-	-	-	-	1,158	1,215
37	Waterloo, University of	-	-	1,256-1,487	1,319-1,619	1,157-1,487	1,215-1,515
38	Western Ontario, University of	-	-	-	-	1,157	1,215
39	Wilfrid Laurier University	-	-	-	-	1,130	1,187
40	Windsor, University of	-	-	-	-	1,158	1,214
41	York University	-	-	-	-	1,157	1,215
Manitoba							
42	Brandon University	-	-	-	-	842	893
43	Manitoba, University of (6) standard tuition	776	822	776	822	776	822
44	Supplementary course fee	195	205	279	282	84	90
45	Total	971	1,027	1,055	1,104	860	912
46	Winnipeg, University of	-	-	-	-	776	822
47	Collège universitaire de Saint-Boniface	-	-	-	-	860	912
Saskatchewan							
48	Regina, University of	-	-	-	-	1,032	1,128
49	Saskatchewan, University of	940	1,015	-	-	940	1,015
Alberta							
50	Alberta, University of	828	852	-	-	828	852
51	Calgary, University of	-	-	-	-	808	832
52	Lethbridge, University of	-	-	-	-	866	892
British Columbia - Colombie-Britannique							
53	British Columbia, University of	1,500	1,650	1,500	1,650	1,155-1,386	1,275-1,530
54	Seminary of Christ the King	-	-	-	-	1,160	1,320
55	Simon Fraser University	-	-	-	-	1,170	1,290
56	Trinity Western University	-	-	-	-	3,200	3,392
57	Victoria, University of	-	-	-	-	1,170-1,404	1,290-1,548

See footnote(s) at end of tables

Frais de scolarité(1) pour les étudiants à plein temps dans les universités canadiennes, 1984-85 et 1985-86

Undergraduate - 1er cycle								
Commerce		Dentistry Art dentaire		Education Éducation		Engineering Génie		No
1984-85	1985-86	1984-85	1985-86	1984-85	1985-86	1984-85	1985-86	
936	982	-	-	936	982	936	982	1
1,270	1,350	1,270 (4)	1,350 (4)	1,524	1,620	1,270	1,350	2
1,375	1,460	-	-	1,375-1,980	1,450-2,100	1,375	1,460	3
1,370	1,438	-	-	-	-	1,370	1,438	4
1,490	1,550	1,988	2,225	1,410	1,466	1,490	1,550	5
-	-	-	-	-	-	-	-	6
1,375	1,460	-	-	1,375	1,460	-	-	7
-	-	-	-	-	-	1,000	1,060	8
-	-	-	-	-	-	-	-	9
1,325	1,405	-	-	1,325	1,405	-	-	10
1,390	1,470	-	-	1,390	1,470	1,390	1,470	11
1,470	1,562	-	-	1,470	1,562	1,470	1,562	12
-	-	-	-	-	-	1,365	1,440	13
1,195	1,310	-	-	1,195	1,310	1,195	1,310	14
1,355	1,470	-	-	1,355	1,470	1,355	1,470	15
1,325	1,400	-	-	1,325	1,400	1,325	1,400	16
-	-	-	-	1,420	1,550	-	-	17
720	730	-	-	-	-	-	-	18
450	450	-	-	-	-	540	540	19
500	500	600	600	450	450	500	500	20
570	570	570	570	570	570	570	570	21
380	380	640	640	540	540	432	432	22
500	500	500	500	500	500	500	500	23
470	470	-	-	470	470	470	470	24
1,218	1,275	-	-	1,218	1,275	-	-	25
1,156	1,214	-	-	-	-	1,256	1,319	26
-	-	-	-	-	-	-	-	27
1,156	1,214	-	-	1,156	1,214	1,256	1,318	28
1,155	1,213	-	-	1,155	1,213	1,155	1,213	29
1,157	1,215	-	-	1,157	1,215	1,257	1,319	30
1,155	1,214	-	-	-	-	1,256	1,320	31
1,259	1,324	-	-	1,259	1,324	1,359	1,429	32
1,156	1,215	-	-	1,156	1,215	1,256	1,319	33
834	878	-	-	834	878	834	878	34
232 (5)	243 (5)	1,472	1,545	1,158	1,215	1,257	1,320	35
-	-	-	-	-	-	-	-	36
1,157	1,265	-	-	-	-	1,487	1,619	37
1,130-1,155	1,187-1,212	1,472	1,548	1,157	1,215	1,256	1,319	38
1,158	1,214	-	-	-	-	-	-	39
1,157	1,215	-	-	1,158	1,214	1,256	1,320	40
-	-	-	-	1,157	1,215	-	-	41
-	-	-	-	842	883	-	-	42
776	822	776	822	776	822	776	822	43
204	223	792	840	86	91	283	327	44
980	1,045	1,568	1,662	862	913	1,059	1,149	45
-	-	-	-	776	822	-	-	46
-	-	-	-	860	912	-	-	47
1,032	1,128	1,032 (4)	1,128 (4)	1,032	1,128	1,032	1,128	48
940	1,015	1,390	1,500	940	1,015	1,025	1,105	49
828	852	1,242	1,278	828	852	1,042	1,072	50
808	832	-	-	808	832	1,011	1,042	51
856	892	-	-	856	892	-	-	52
1,155-1,386	1,275-1,530	2,000	2,200	1,155-1,386	1,275-1,530	1,500	1,650	53
-	-	-	-	-	-	-	-	54
1,170	1,290	-	-	1,170	1,290	1,170	1,290	55
3,200	3,392	-	-	3,200	3,392	-	-	56
-	-	-	-	1,170-1,404	1,290-1,548	1,500	1,514	57

Voir note(s) à la fin des tableaux.

TUITION FEES AS A PERCENTAGE OF GENERAL OPERATING INCOME, BY PROVINCE

74/75 TO 83/84

	74/75	75/76	76/77	77/78	78/79	79/80	80/81	81/82	82/83	83/84
NFLD.	12.7	11.2	11.2	10.4	10.5	10.2	10.2	10.5	11.8	11.0
P.E.I.	18.0	16.8	17.2	18.5	15.3	15.5	15.8	15.8	18.8	19.1
N.S.	20.5	17.2	16.3	16.7	14.7	15.1	14.7	16.0	16.9	19.1
N.B.	17.8	17.1	15.9	15.3	14.9	13.9	13.8	15.1	16.6	18.7
QUE.	15.1	12.9	11.9	11.6	11.0	10.3	9.5	9.6	9.2	9.4
ONT.	18.1	17.1	15.6	16.5	15.8	15.9	16.9	18.0	19.5	20.1
MAN.	14.0	12.3	11.7	10.9	12.8	12.5	12.8	13.3	12.7	13.9
SASK.	14.8	12.7	12.9	13.8	12.9	13.3	12.9	12.8	14.1	14.9
ALTA.	13.6	11.7	12.6	12.3	12.1	11.3	11.6	11.0	11.8	12.4
B.C.	12.1	10.8	9.9	11.1	10.8	10.7	10.8	10.9	12.8	13.6
CANADA	16.1	14.5	13.5	13.8	13.3	13.0	13.1	13.6	14.5	15.3

SUMMARY OF ASSISTANCE PROGRAMS

84/85

ANNEX 3

NAME OF PROVINCE	STUDENT STATUS	MIX OF AID	OTHER ASSISTANCE	TOTAL AVAILABLE	PORTABILITY	
					TO OTHER PROVINCES	OUTSIDE CANADA
New Brunswick	Students in Public Institutions	First \$2,400 Canada Student Loans. Next \$2,200 New Brunswick Bursary. Remainder CSL assistance to total of \$105 CSL per week of study.	Loan Rebate Program	\$5,560 for 32 week period of study	CSL - Completely portable NB Bursary - portable to all public institutions	CSL - Completely portable NB Bursary - Portable to all Public institutions
	Students in Private Institutions	Canada Student Loans of \$105 per week of Study.		\$3,360 for 32 week period of study		
Nova Scotia	All students	First \$2,500 CSL. Next \$1,700 NS Bursary. Remainder CSL to a total of \$105 CSL per week of study.		\$5,270 for 34 week period of study	CSL completely portable. NS Bursary completely portable providing course of study is not available in NS, NB, PEI or Nfld.	CSL completely portable. NS Bursary completely portable providing course of study is not available in NS, NB, PEI or Nfld.

SUMMARY OF ASSISTANCE PROGRAMS
84/85

ANNEX 3

NAME OF PROVINCE	STUDENT STATUS	MIX OF AID	OTHER ASSISTANCE	TOTAL AVAILABLE	PORTABILITY TO OTHER PROVINCES	OUTSIDE CANADA
Saskatchewan	First 5 years of study	CSL - \$2,161.50 for a 33 week period of study (65.50 per week) Saskatchewan Student Bursary - \$2,161.50 for a 33 week period (\$65.50 per week) CSL \$1,303.50 for a 33 week period of study (remaining \$39.50 per week)	Special Incentive Bursary of \$105 per week if high need. Special Incentive Remission Program - 1st year - 100% 2nd year - 50%	\$5,626.50 for a 33 week period of study.	All Students CSL - Completely portable Sask. Government Bursary - one-half the bursary is portable to public institutions. Government Loan - not portable	All Students CSL - Completely portable Saskatchewan Government Aid - Not portable
	6th year of study and beyond	CSL - \$65.50 per week of study \$2,161.50 for a period of 33 weeks Saskatchewan Government Loan - \$65.50 per week of study \$2,161.50 for a period of 33 weeks) CSL \$39.50 per week \$1,303.50 for a period of 33 weeks).		\$5,626.50 for a 33 week period of study.		

SUMMARY OF ASSISTANCE PROGRAMS
84/85

ANNEX 3

NAME OF PROVINCE	STUDENT STATUS	MIX OF AID	OTHER ASSISTANCE	TOTAL AVAILABLE	TO OTHER PROVINCES	PORTABILITY OUTSIDE CANADA
Ontario	Single dependent, married and single parents	\$2500 Ontario Study Grant per grant eligibility period. \$3,465 CSL (\$105 per week x average of 33 weeks) \$2,700 OSL per academic year				
	Students having taken more than eight eligibility periods of post-secondary study.	\$3,465 CSL (\$105 per week x average of 33 weeks) \$2,700 OSL per academic year				
	Students having taken less than eight eligibility period of post-secondary study		Ontario Special Bursary for Part-time students and student taking upgrading courses.	Single Dependent Married or Single Parent Students \$11,165 - 33 week period	All Students CSL - Completely portable	All students CSL - completely portable
	Single, independent	\$1,150 Ontario Study Grant per grant eligibility period. Ontario Work Study Plan. \$3465 CSL (\$105 per week x average of 33 weeks) \$2700 OSL per academic year	Students who have exceeded 8 eligibility periods \$6,165	OSG - to approved post-secondary institutions OSL - not portable	OSG - to approved post-secondary institutions OSL - not portable	Provincial Programs - not portable
	Students attending Private Vocational Schools	\$1000 Ontario Study Grant per grant eligibility period. \$3465 CSL (\$105 per week x average of 33 weeks) \$2700 OSL per academic year		Single Independent Student \$8,465		
				Students attending Private Vocational Schools \$8,165		

SUMMARY OF ASSISTANCE PROGRAMS
84/85

ANNEX 3

NAME OF PROVINCE	STUDENT STATUS	MIX OF AID	OTHER ASSISTANCE	TOTAL AVAILABLE	PORTABILITY	
					TO OTHER PROVINCES	OUTSIDE CANADA
Manitoba	All	\$105 CSL per week of study (\$3,465 for a 33 week period) \$105 Manitoba Government Bursary (\$3,465 for a 33 week period) \$1,000 Manitoba Government loan/grant is available after all other sources have been exhausted.	Special Opportunity Awards for disadvantaged students, etc. single parents, etc. Assistance under Canada Assistance Plan Manitoba Loan Program	\$7,930 for a 33 week period of study	CSL - Completely portable Manitoba Assistance <u>Undergraduates</u> - portable outside province only if course not available in Manitoba <u>Graduates</u> - completely portable	CSL - Completely portable Manitoba Assistance <u>Undergraduates</u> - not portable <u>Graduates</u> - completely portable

SUMMARY OF ASSISTANCE PROGRAMS
84/85

ANNEX 3

NAME OF PROVINCE	STUDENT STATUS	MIX OF AID	OTHER ASSISTANCE	TOTAL AVAILABLE	TO OTHER PROVINCES	PORTABILITY OUTSIDE CANADA
British Columbia	Married Students/ Single Parents	\$3,360 CSL (\$105 per week x average of 32 weeks) \$2,400 B.C. Loan		\$ 5,760 for 32 week period of study	ALL STUDENTS CSL - Completely portable	ALL STUDENTS CSL - Completely portable
	Single Students	\$3,360 CSL (\$105 per week x average of 32 weeks) \$2,000 B.C. Loan		\$5,360 for 32 week period of study	B.C. Loan - portable only if course is not offered in province or is over subscribed.	B.C. Loan - not portable
Alberta	Undergraduate At Home	\$3,570 CSL (\$105 per week x average of 34 weeks) \$730 Alberta Loan \$2,500 Alberta Supplemental Assistance Grant	Single Parents and Disadvantage Students: Maintenance Grant of \$6000 Loan Remission of Amount borrowed: Year 1 50% Year 2 40% Subsequent years 25% Bursaries for Part-time Students	Undergraduate at Home \$6,800 (\$12,800 if single parent or disadvantaged) Undergraduate Away From Home \$8,800 (\$14,800 if single parent or disadvantaged) Graduate and Professional Students \$6,800 (\$12,800 if single parent or disadvantaged).	Undergraduate Students CSL - completely portable. Provincial Assistance - portable only if course is unavailable or oversubscribed in Alberta, course can be reduced by at least one semester or a Scholarship will reduce costs or if spouse is eligible for one of the above	Undergraduate students - CSL - Completely portable Provincial Assistance - not portable
	Undergraduate away from Home	\$2000 Equal Opportunities Educational Grant \$3,570 CSL (\$105 per week x average of 34 weeks) \$730 Alberta Loan \$2500 Alberta Supplemental Assistance Grant				
	Graduate and Professional Students	\$3,570 CSL (\$105 per week x average of 34 weeks) \$3,230 Alberta Loan			Graduate or Professional Students - CSL - Completely portable. Provincial Assistance - Completely portable.	

SUMMARY OF ASSISTANCE PROGRAMS
84/85

ANNEX 3

NAME OF PROVINCE	STUDENT STATUS	MDX OF AID	OTHER ASSISTANCE	TOTAL AVAILABLE	PORTABILITY	
					TO OTHER PROVINCES	OUTSIDE CANADA
P.E.I.	All Students	First \$2,400 Canada Student Loan Next \$1,700 P.E.I. Bursary Remainder CSL Assistance to total of \$105 CSL per week.		\$5,060 for 32 week period of study	CSL - Completely portable	CSL - Completely portable
					P.E.I. Bursary - Completely portable	P.E.I. Bursary - Completely portable
Newfoundland	Married Students/ Single Parents	\$3,360 CSL (\$105 per week x average of 32 weeks) \$2,500 Newfoundland Grant	Deferred Grants - Students are required to borrow maximum C.S.L. available before receiving any grant. Any amount borrowed in excess of \$1,800/year and up to \$3,800/year will be paid to the bank on student's behalf upon consolidation.	\$5,860 for a 32 week period of study	CSL - completely portable	CSL - completely portable
					NETLD Grant - completely portable providing course is not available within the Province.	NETLD Grant - completely portable providing course is not available within the Province.
	Single Students	\$3,360 CSL (\$105 per week x average of 32 weeks) \$2,000 Newfoundland Grant		\$5,360 for a 32 week period of study	NETLD Grant - completely portable providing course is not available within the Province.	NETLD Grant - completely portable providing course is not available within the Province.

SUMMARY OF ASSISTANCE PROGRAMS
84/85

ANNEX 3

NAME OF PROVINCE	STUDENT STATUS	MIX OF AID	OTHER ASSISTANCE	TOTAL AVAILABLE	PORTABILITY	
					TO OTHER PROVINCES	OUTSIDE CANADA
Québec	College Level	\$1,130 loans \$8,250 grants	\$130 for students at institutions in Québec and teaching chiropractic, naval architecture, orthoptic or podiatric medicine	College Level In Québec or studying chiropractic, naval architecture, orthoptic or podiatric medicine - Single-\$9,510 married-\$11,960 studying outside Québec:	As per previous columns - Does not issue CSL.	As per previous columns Does not issue CSL
	University Level	\$1,580 loans \$8,850 grants				
	Graduate or 2nd degree level	\$2,250 loans \$8,850 grants	\$280 for students outside Québec other than above	Single-\$9,660 Married-\$12,110		
	Other institutions	\$1,790 per academic session	\$10,700 for married students with dependents living with them (instead of grant).	University Level in Québec or studying Chiropractic, naval architecture, orthoptic or podiatric medicine \$10,110 - single \$12,710 - married Outside Québec \$10,260 - single \$12,710 - married Graduate or 2nd Degree level In Québec or studying chiropractic, naval architecture, orthoptic or podiatric medicine \$11,230 - single \$13,080 - married Outside Québec: \$11,380 - single \$13,230 - married Other Institutions		

STUDENT AID

EDUCATION ASSISTANCE

DEPARTMENT OF VETERANS AFFAIRS

DESCRIPTION AND OBJECTIVE

This program provides supplementary assistance to persons in receipt of an orphan's pension from the department to enable them to take post-secondary education. Benefits are up to \$800 annually for tuition and related costs, with a monthly living allowance of \$102.27, indexed to the CPI, for each month of school attendance. The \$800 allowance was set in 1960 with the objective of covering tuition and related costs and books.

AUTHORITY

The Children of War Dead Education Assistance Act, 1952/53.

HISTORY

The program was established with the intent of providing for the children of war dead. It is also available to the children of persons who survived a war but were in receipt of a pension for a disability of 48 per cent or more when they died. By extension, the aid is also available to the children of members of the armed forces who die in peacetime while engaged in military activities.

STRUCTURE

The regions administer the program and the budget is a roll-up of their forecasts.

RESOURCES (\$000s)

83/84	84/85	85/86
866	795	1,115

Although the actual expenditure is diminishing, an increase has been provided in the 1985/86 Main Estimates.

BENEFICIARIES

Approximately 450 persons receive benefits under this program. In 1983/84, the distribution of the students and dollars by region was as follows:

Region of Residence	Number of Students	Expenditure
Atlantic	81	\$ 150,155
Quebec	80	165,942
Ontario	154	331,587
Prairie	73	126,255
Pacific	36	92,024
<hr/>		
TOTAL	424	\$ 865,963

ASSESSMENT

The study team on Veterans Programs proposed that the governing act, as well as 13 other acts administered by the department, be combined into a new Department of Veterans Affairs Act. The department is now reviewing this and other programs through an internal task force.

It appears that a program intended to give special recognition and aid to the children of persons killed in war service has been extended into a benefit program for the children of military employees. In the view of the study team, this is not entirely appropriate.

OPTIONS

The study team recommends to the Task Force that the government consider ensuring consistency across its student aid programs (see Assessment Note on the Canada Student Loans Plan). This program of aid to students should be included in the review, recognizing also that the Department of Veterans Affairs will be preparing some recommendations for its future.

STUDENT AID

CANADA STUDENT LOANS PROGRAM

SECRETARY OF STATE

DESCRIPTION

This plan provides financial assistance to eligible students, defined in terms of their financial need, who are Canadian citizens or permanent residents and are in post-secondary studies as designated by provinces. The assistance provided for full-time post-secondary students consists of: 1) guarantee of loans made to the students by lending institutions; 2) payment of the interest charges during the student's period of studies and for six months thereafter; and 3) interest relief or debt write-off for restricted groups of students who are unable to assume the responsibility for repaying their loans after termination of studies.

For part-time students, the assistance consists of guarantee of loans made to the students by lending institutions. There is no interest subsidy on these loans, and the borrowers must commence repayment 30 days after borrowing. Interest relief and debt write-off are also available for part-time students.

The provinces administer the authorization of loans in the Canada Student Loans Program (CSLP), receiving an administrative fee for doing so. They also administer their own student assistance plans, combining their plans with the CSLP in an aid "mix" which they unilaterally determine within the overall ceiling prescribed in the Canada Student Loans Act.

The province of Quebec operates its own loan plan and receives a formula-determined compensation payment from the federal government. This option is available to any province.

OBJECTIVE

The objective is to assist post-secondary students with the costs of their education. The objective has remained the same through the program's life, however, its application has altered in line with recognition of specific

need components such as disability, or unemployment after leaving school.

AUTHORITY

Canada Student Loans Act

HISTORY

The program began in 1964, when very little provincial assistance was provided to students. From the beginning, applications have been received and loans authorized by the provinces, with subsequent loan maintenance responsibility belonging to the banks and the federal government. All provinces now have their own student aid plans, which they administer in combination with CSLP. Major changes in the history of the program include its transfer from the Department of Finance to the Secretary of State in 1977, a change in 1968 in the manner of calculating the interest rates to be paid on loans by the federal government and by the repaying borrowers, and the broadening of the program in 1983 to include part-time students (in a limited way), temporary interest relief for unemployed repayers of loans, and relief by way of write-off for disabled borrowers. Some of these changes, and the raising of the loan limit, were responses to the recommendations made in 1981 by a joint Federal-Provincial Task Force on Student Assistance. Other substantial changes also proposed were not undertaken. In loan year 1982/83, the Parental Contribution Table was revised (that is the formula determination of the amounts that parents of dependent children are expected to contribute to their expenses) with the effect that more students meet the definition of needy.

STRUCTURE

Applicants make their applications on provincial application forms, generally through the post-secondary institutions they plan to attend. Provincial student aid officers assess the applications, verify them (at least a five-per-cent spot check is required by the CSLP), and issue loan certificates which the students use at their own lending institutions to arrange loans up to the value of the certificate. Provinces use a common needs assessment but may apply more stringent criteria.

The interest rate banks receive is fixed by a formula set out in regulations under the Act, and changes annually.

For some years, there have been complaints that some banks are not very cooperative with student borrowers.

Of major importance in assessing the student's resources is the determination of whether the student is financially dependent (in which case his or her family's income and, in some provinces, resources are taken into consideration) or financially independent.

Another consideration is whether the student, if financially dependent, is leaving home to take a program of studies locally available and thereby incurring greater living expense than is necessary. Several provinces will not support such additional expense from their own aid plans, but the CSLP is completely "portable".

After leaving school the former student has six months' grace before he or she is required to make an arrangement with the lending institution to consolidate all debts and contract into a repayment plan which may last no more than 10 years including the grace period. The repayment covers all principal and interest from the date of the arrangement. The maximum interest rate is fixed by regulation under the CSL Act and this maximum is generally used as the actual. Should the student fail to make the repayment arrangement, or fall into arrears of three months on the repayment plan, the lending institution may claim the debt from Canada. The federal government then, if the borrower fails to respond to a request to repay the government directly, turns the repayment of the principal default over to a collection agency. Collection agency charges are 25 per cent of recoveries.

During the period when the student is at school, the federal government pays the interest on the student loan at an interest rate which also is determined by regulation. The interest rates are fixed for one year at a time. Since the government is paying interest charges on a large number of loans (\$785 million as of July 31, 1984) the interest rates are combined into a "mixed rate" for the past years' loans and the payments are made to the lending institutions by the government at the mixed rate. The government pays interest on the current year's loans at the rate fixed according to regulations. Thus, the government is paying two rates to the banks, for the two categories of loans.

RESOURCES

Total funding, including both statutory (grants and contributions) and operational is shown below.

CSLP Funding (\$millions)

	83/84	84/85	85/86
Statutory	185.0	207.9	269.9
Operating	5.3	5.7	6.3
TOTAL	190.3	213.6	276.2

Expenditure forecast for the next three years, again total, is shown below.

CSLP Funding Forecast (\$millions)

	86/87	87/88	88/89
Statutory	304.2	335.4	352.1
Operating	7.2	7.7	8.4
TOTAL	311.4	343.1	360.5

Administrative costs amount to less than 2.5 per cent of total expenditure. Total person-years in 1985/86 are 76. The administrative tasks of the directorate are substantial, since the two million individual student records must be maintained in current status on computer, and the transactions with banks and collection agencies are continuous.

As a national average, the CSLP provides about two-thirds of the assistance students receive through general assistance plans in a given year. However, because the CSLP is entirely loan while most provinces provide some bursary in their aid, the federal proportion of the non-recoverable outlay is approximately 40 per cent for 1984. This has increased from the 26 per cent reported by the Task Force on Student Assistance for 1980. The increase is partly the result of a substantial (and long delayed) increase in maximum loan limits in 1983, and partly the result of changes which provinces have made in their own aid plans and in the "mix" of CSLP and provincial aid.

The department estimates that in 1984/85, the cost of operating the loan system equalled about 34 per cent of the loan amounts provided. It also estimates that its cost of administering a grants program instead of a loan program would be about 10 per cent. In other words, it costs the government about 35 cents per dollar of benefit for the loans compared to about \$1.10 per dollar of benefit if it were to move to a grant plan.

A summary of financial operations since inception is shown in Annex 1.

BENEFICIARIES

In the 1983/84 student loan year -- not the same as the fiscal year -- the number of borrowers and the expenditure were distributed as shown below:

Distribution of Beneficiaries and Statutory Expenditures

	Number of Students	Statutory Expenditures (\$000s)
BC	19,332	12,031.4
Alta	25,589	15,925.5
Sask	7,819	4,866.2
Man	8,439	5,252.1
Ont	104,451	65,006.0
Que*	100,684	36,596.4
NB	9,911	6,168.2
NS	11,403	7,096.7
PEI	1,873	1,165.7
Nfld	7,183	4,470.4
Yukon	146	90.9
NWT	8	5.0
TOTAL	296,838	158,674.5

* Quebec does not participate in the Canada Student Loans Program. Because the province has its own plan, it receives a compensating payment under the CSL Act with which it aids Quebec students.

Note - This table shows the province of residence of beneficiaries, not the province of study.

Approximately 40 per cent of all full-time post-secondary students receive aid through the Canada Student Loans Program. The percentage has moved upwards from 26.5 per cent in 1964. In most recent years, student summer earnings and the capacity of parents to provide financial support have both been declining as it appears from the need assessments.

To the end of the 1983/84 loan year, a total of 2.1 million students had made use of the CSLP since its inception. Just under 7 per cent had defaulted. On a net basis, however (i.e. in relation to the number of students entering repayment status) the default rate was 11.74 per cent, and the net loss ratio in dollars was 9.1 per cent. The total dollar value of defaults at the end of 1983/84 was \$310.2 million, of the \$2.47 billion that had been borrowed since program inception in 1964, but 47 per cent of the losses had been recovered to date, leaving a net loss of \$162.1 million yet to be recovered. The absolute net loss to the Crown is approximately 6 per cent of the total amount defaulted. Annex 2 gives default information for the most recent years, and indicates in the slowly increasing cumulative default rate and loss ratio that the default situation is worsening slightly. This would be expected as the average debt load increases. See Annex 3 for selected data on debt loads, borrowings and costs.

In 1981 and 1982, former students were reporting inability to maintain their repayment obligations because of unemployment (as well as very high interest rates) and in consequence, the Interest Relief Plan was introduced in 1983 to permit additional government subsidy by way of continuing interest payments for a period, if former students are unemployed and needy and therefore unable to make repayments. (However, the preliminary cumulative data in July, 1985, show that only 9 per cent of defaulting students had given unemployment as a reason for default; almost three-quarters of defaulters had either simply skipped out or had refused to give any cooperation, including an explanation of the default.)

In the 1983/84 loan year, \$1,141,990 was approved for payment for interest relief though not all of this was paid out within the loan year. Another new provision introduced at the same time, the payment of CSLP debt on behalf of

permanently disabled borrowers, cost \$193,679 in that first year.

RELATED PROGRAMS

- selective tax measures to assist people to attend school;
- transfer programs to support post-secondary institutions;
- scholarships, bursaries and fellowship awards given by federal departments, Crown corporations, and the granting councils;
- training allowances of Employment and Immigration; and
- special educational programs of other departments, e.g. DIAND, Solicitor General.

Persons benefitting from other government programs are eligible for student aid so long as they meet the criteria. Thus, persons in retraining programs, Natives, inmates of penitentiaries, persons on parole, recipients of unemployment insurance benefits, etc. are all eligible for CSLP. However, most retraining clients of Employment and Immigration would not be enrolled in programs classed as post-secondary, and for that reason would be ineligible. Recipients of unemployment insurance benefits lose their UI benefits if they enroll in programs of study of any length. Natives with status are usually able to get more generous assistance from DIAND than from CSLP. Inmates of penitentiaries and people on parole may receive CSLP but there is a point of argument as to whether they are on the same footing as other borrowers when it comes to capacity to repay. The standards of financial need are not uniform across governmental support programs.

ASSESSMENT

In the view of the study team, the objectives of the program remain appropriate.

There is a need for more systematic coordination of this major student assistance program with the student assistance programs of other federal agencies, notably the Departments of Employment and Immigration, Indian Affairs and Northern Development and the Solicitor General.

There is, in the team's opinion, a need to review the relationship between the Canada Student Loans Program and

the various provincial student assistance plans. The administrators of the CSLP and of the provincial student aid plans have commendably worked hard together, and still do, to improve the standardization of their needs assessment, criteria, earnings and contribution tables and so forth. Despite the administrative efforts for coordination, areas of difficulty exist:

- a. Students in seemingly identical circumstances may find themselves assessed differently for CSLP because they come from different provinces and there are provincial differences in the administration of the CSLP.
- b. When a province alters its aid system or its aid mix, the take-up of CSLP and consequently the federal outlay are affected. There is, however, no requirement for consultation with the CSLP when this occurs or even for notice of change to be given.
- c. Provinces and the federal government have differing policies with respect to aspects of student aid, reflecting their political philosophies and priorities. However, it is not clear that these policy differences need to be so great as they are. There is no mechanism for intergovernmental consultation at the policy level other than exchanges of ministerial letters. It should be noted that the ministers responsible for student aid are not usually the Ministers of Education of the provinces.
- d. Very recently, as provincial governments attempt to target their student aid very closely, several have adopted the use of multiple assessments. Using the same information base (the application forms) they will assess the student by CSLP criteria for CSLP eligibility and then by stricter criteria for provincial bursary eligibility. This appears to reduce the commonality of the approach to student aid. It also appears to have led in places to extremely complicated forms which students have to complete.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. (Preferred) Leave student aid entirely to the provinces but provide a grant to provinces in financial support of their student aid.

The chief advantage of this option is that it reduces and ultimately eliminates (after a winding-down period necessitated by outstanding loans and guarantees), the federal administrative cost. The study team notes that during the phase-out period of the loans an additional expenditure would be required, to support the two plans. While the phase-out period for loans would be about 16 years, the major expenditures would be just in the first few years.

A disadvantage of the option is that it may be extremely difficult to maintain the common core of needs assessment which now provides students from all provinces with some commonality in their student aid.

2. Maintain the present federal-provincial form of student aid plan, but minimize or eliminate its defects.

This option would offer the substantial advantages of unified administration (from the students' viewpoint), assessments of cost-of-living based realistically on provincial differences, and a reasonable expectation that students would neither get duplicate grants nor fail to qualify for any assistance, both of which are possible outcomes if there are separated provincial and federal aid plans.

A disadvantage of this option is that it would not be possible to eliminate all of the problems in the present form of plan. Their major source, however, appears to be that the federal government has not adopted policy initiatives which would reduce them. An attempt in this direction was made through the Joint Task Force on Student

Assistance of 1980, but follow-up to the Task Force report was terminated by the 1981 recession. The study team proposes that the matter now be taken up by the Secretary of State, who could make a formal proposal to the provincial ministers responsible for student aid inviting agreement on:

- a. increased commonality in needs assessment;
- b. increased commonality in consideration of parental contributions required;
- c. reduction of the use of multiple assessments, in consequence of increased commonality; and
- d. a modification of the present system to the effect that provinces enter into periodic bilateral agreements with the federal government to maintain their student aid systems for three years, and to give due notice of changes to be made. The objective would not be to undermine the provincial role, but to establish a greater predictability in student aid for both students and the federal government.

We are not suggesting a new federal/provincial joint study as in 1980, but an offer of leadership in this complex area by the federal government at the ministerial level.

3. Terminate the Canada Student Loans Program and introduce in its place a refundable tax credit for students.

This option has the advantage of saving federal administrative costs. A major disadvantage is that this approach makes it practically impossible to maintain the present "family responsibility" feature of all student aid plans, i.e. the principle that families should contribute if possible to the support of their dependent children at school. A new principle of regarding all post-secondary students as independent individuals as far as their parents are concerned could clearly be very costly, and has widespread social implications. Another disadvantage is that students would not necessarily be receiving the money when they need it, and there would be benefit leakage to financial enterprises in the discounting business.

Selected Data on CSLP Payments and Recoveries

Loan Year	Interest Payments	Loss Claims Payments	Death Claims	Collection Costs	Recoveries (Credit)	Alternative Payments to Quebec	Total Statutory	Service Fees
1964-65	154,345	--	500	--	--	--	154,845	--
1965-66	1,551,733	6,751	20,690	--	--	74,262	1,653,436	93,318
1966-67	2,438,354	109,256	55,607	--	2,588	757,448	3,358,077	151,102
1967-68	4,936,456	210,437	93,485	983	9,675	1,229,577	6,461,263	223,525
1968-69	5,993,076	395,709	122,134	14,585	64,695	2,402,553	8,863,362	307,528
1969-70	10,621,705	1,495,650	163,973	21,306	109,618	2,909,954	15,102,970	367,686
1970-71	16,565,480	4,983,074	208,996	116,183	557,692	5,342,277	26,658,318	426,121
1971-72	11,558,412	7,597,242	199,046	192,467	1,030,066	9,069,966	27,587,067	479,495
1972-73	20,039,215	8,849,095	238,937	305,384	1,724,576	7,977,986	35,686,041	499,834
1973-74	16,272,785	12,342,508	321,641	391,445	2,379,871	11,104,750	38,053,258	533,173
1974-75	19,011,499	13,982,509	431,506	688,591	4,198,708	10,704,927	40,620,324	606,166
1975-76	21,877,080	15,991,766	429,283	1,260,549	5,700,890	11,826,396	45,684,184	749,742
1976-77	19,419,330	19,861,326	343,444	2,389,540	9,218,177	13,027,488	45,822,951	952,322
1977-78	31,166,431	19,357,614	417,900	2,763,814	11,106,330	12,102,573	54,702,002	960,373
1978-79	39,003,234	25,139,759	282,740	2,718,448	11,692,772	15,875,306	71,326,715	798,547
1979-80	32,922,029	25,943,518	213,010	2,773,540	13,192,936	21,670,352	70,329,513	1,302,788
1980-81	27,840,292	26,739,118	388,637	3,749,047	17,924,487	17,452,508	58,245,115	1,423,084
July '81*	10,293,171	1,909,150	28,820	336,578	1,196,650	--	11,371,069	--
1981-82	49,408,241	33,626,693	400,801	3,703,735	18,407,459	17,612,136	86,344,147	2,000,367**
1982-83	71,773,235	43,234,255	442,131	4,160,931	20,265,474	25,828,646	125,173,724	2,025,879
1983-84	92,549,251	46,563,948	531,749	6,151,232	29,309,026	36,596,441	153,680,676	2,682,241
TOTAL	505,395,354	308,339,378	5,335,030	31,738,358	148,091,690	223,565,546	926,879,057	16,583,291

* Shown separately because in 1981 the loan year (and reporting year) changed from July 1 - June 30 to Aug 1 - July 30

** Incorrect in 1981-82 and 1982-83 Annual Reports. Corrected for this report.

CSLP DEFAULT STATISTICS

Cumulative
Since 1964

	80/81	81/82	82/83	83/84	Cumulative Since 1964
1. Number of students negotiating loans	128,362	138,539	172,506	196,154	2.1 M
2. Dollar value of loans negotiated	162.1 M	199.9 M	280.3 M	454.9 M	2.47 B
3. Number of students defaulting	11,290	13,289	16,732	19,523	146,120
4. Dollar value of defaults	28.6 M	33.6 M	43.2 M	48.3 M	310.2 M
5. Dollars recovered	19.1 M	18.4 M	20.3 M	29.3 M	148.1 M
6. Net Loss	9.5 M	15.2 M	22.9 M	19.0 M	162.1 M

7. Default Rate - This measures the number of Bank claims for default against the total number of students who enter repayment status. It is a cumulative statistic and is updated yearly.

- # of defaults
- # students in repayment status

9.74% 10.10% 11.15% 11.74% -

8. Loss Ratio - measures net dollars defaulted (i.e. after recoveries each year) as a cumulative % of total dollars entering repayment status.

- Net \$ value of defaults
Total \$ repayment status

8.18% 8.4% 9.06% 9.1% -

SELECTED STATISTICS ON STUDENT BORROWING, RESOURCES, COSTS, AND DEBT LOAD

Table 1 **Average CSL Debt Burden of Final-Year Students
Borrowing through CSL in 1984/1985**

By Province		By Level of Faculty	
All Post-secondary Institutions		University Only	
Nfld.	\$4,614	Doctorate	\$8,177
P.E.I.	\$5,305	Masters	\$6,718
N.S.	\$5,729	Bachelors	\$6,192
N.B.	\$4,780	Non-degree	\$3,572 *
Ont.	\$4,482	Medicine	\$9,175
Sask.	\$4,193	Law	\$7,679
Alta.	\$4,855		
B.C.	\$4,527		
Yukon	\$1,871		
N.W.T.	\$3,805		
Average	\$4,644		

* The average debt load of non-degree students at junior colleges was \$3,686.

Table 2 **Average Canada Student Loan**

1964/65	\$ 580
1974/75	\$ 781
1982/83	\$1625
1984/85	\$2542

Table 3 **Average Resources Available to Degree Students
Borrowing from CSLP in 1982/83**

Average parental contribution	\$1,519
Average student contribution	\$1,099
Average contribution from student's part-time earnings	\$ 935
Average contribution from other resources	\$1,134
Average contribution from investments *	\$1,653
Average total resources	\$2,063

* A large item because some provincial aid programs were entered in this category

Note - Contributions were averaged over those students who reported receiving them, and therefore data cannot be compiled for a total.

Table 4 **Average Costs of Degree Students Borrowing from CSLP in 1982/83 (as determined by provincial formulas)**

Fees	\$ 971
Books, etc.	\$ 364
Maintenance	\$2,358
Local Transportation	\$ 214
Return Transportation	\$ 128
Miscellaneous	\$ 819
Other	\$1,263
Married Students' Deficit *	\$5,967
TOTAL	\$5,346

* i.e. where married students required support for their dependents.

INTERNATIONAL EDUCATION AND RESEARCH

OVERVIEW

The mandate of the study team included assessing programs in education and research with an international dimension. In total these programs accounted for some \$34 million and 52 person-years in 1985/86.

The programs that were assessed involved international development research, scholarships for Canadians studying abroad and foreign students studying in Canada and general activities with international educational objectives.

Not included within the study team's mandate was an assessment of the situation pertaining to foreign students other than those on scholarships, who constitute the vast majority of the total 58,000 foreign students studying in Canada during 1984/85.

DESCRIPTION

External Affairs, the Canadian International Development Agency (CIDA) and the International Development Research Centre (IDRC) are responsible for the international programs assessed by the study team.

The IDRC, created in 1980 as a Crown corporation, has as its primary focus the transfer and application of technology from Canada to developing countries. Its approach emphasizes the involvement of its third world partners in all its projects and considerable attention is given to regular consultations with its client groups. This approach coupled with the representation of the developing countries on its board of directors, enables it to maintain a close and continuing liaison with its client communities. The IDRC is regarded internationally as a prototype for achieving excellence in the delivery of international development programs and several other nations have created similar agencies.

The Commonwealth Scholarship Program is the largest of the scholarship programs assessed and has the most broadly defined objectives. It is a reciprocal program that enables commonwealth students at the Ph.D. level to study for up to two years in another Commonwealth nation.

Other international scholarship programs are closely tied to third world research and development activities that emphasize the transfer of knowledge and direct project involvement.

Two programs in External Affairs have considerably different objectives to the others assessed. One is directed to supporting Canadian studies in educational institutions abroad and the other to increasing the number of business administration students studying international management and trade.

Some 35,000 non-scholarship foreign students attend Canadian universities. On a per-capita basis, this is more than in the U.K., U.S., France or Germany. These students are not eligible for student loans, for health-insured services or employment. In recent years, most provinces have imposed a differential fee for non-Canadians attending universities.

ASSESSMENT

The reasoned and precisely directed management approach of IDRC offers, in the view of the study team, a superior vehicle for the delivery of international programs, particularly those in the field of research.

The CIDA programs assessed, on the other hand, appeared to lack clear definition and objectives and in some instances conveyed the impression that they were more the result of the interests of Canadian institutions than reflections of the government's international commitments.

Each of the three agencies has particular roles to play: External Affairs in international relations; IDRC in research and technology transfer; CIDA in third-world aid and development. The effective management of Canada's international efforts would be enhanced if these were translated into clearly-defined authorities and jurisdictions.

The attendance of significant numbers of foreign students in Canadian universities reinforces the image of Canada as an open and sensitive society and can strengthen its international standing. However, if the conditions imposed upon these students are seen to be intolerable it can become both negative and harmful.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. In the area of international development research, IDRC was found to be superior in its delivery of programs and it is therefore proposed that all such programs should be transferred to it.
2. All international scholarship programs for Canadians and Commonwealth citizens could be managed by one agency, with the administration being contracted out to appropriate non-governmental organizations.
3. The situation pertaining to non-scholarship foreign students in Canada should be studied in more detail.

INTERNATIONAL EDUCATION AND RESEARCH
EDUCATIONAL INSTITUTIONS PROGRAM
CANADIAN INTERNATIONAL DEVELOPMENT AGENCY

DESCRIPTION

The Educational Institutions program provides financial assistance in response to proposals made by Canadian educational institutions which are involved in the upgrading of their Third World counterparts. Core support is provided to a number of umbrella organizations representing different interests of Canadian institutions. Projects are for a duration of one to three years. Permissible overhead costs range from 30 to 40 per cent of on-campus payroll costs and 15 to 25 per cent of off-campus payroll costs. Modest scholarship programs are supported at five institutions. In 1985/86, support was provided to some 280 projects.

OBJECTIVE

The objective is to strengthen the capacity of developing countries' institutions to identify and implement appropriate solutions to development problems.

AUTHORITY

Appropriations Act.

HISTORY

The program was established as a Division of Canadian International Development Agency's (CIDA) Special Programs Branch in 1979 to provide encouragement for the initiatives of Canadian institutions involved in international development.

RESOURCES (\$000s)

	83/84	84/85	85/86
Course contributions	20,412	10,706	13,600
Person-years	8	8	8

BENEFICIARIES

Canadian post-secondary institutions and their Third World post-secondary institutional partners.

RELATED PROGRAMS

IDRC, Cooperative Programs.

ASSESSMENT

In the view of the study team, the objective of the program is very broadly defined, giving no indication of what roles are to be played by the Canadian or Third World institutions.

Recently, attempts have been made to improve the disbursement of project funds in order that quality and not date of receipt becomes the important criterion in review.

The establishment of a scholarship program in some universities does not, in the view of the study team, appear to be consistent with the program's objective nor is it promoting equity when not available to all universities and their students.

While the program is presently promoted via international development officers in universities and colleges, it could be more widely promoted within the academic community.

The umbrella organizations of the universities and colleges receive core support and project funding as do their member institutions.

Projects are required to be practical and of a nature that will continue Third World institutional upgrading; however, these do not appear to be clear definitions or guidelines for applicants.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Terminate the program.
2. (Preferred) The program's mandate could be transferred to the International Development Research Centre.

3. The program could be reorganized with a limited and clearly expressed mandate and set of objectives. In this case, the peer review of projects and improved accountability could be built into the organization.
4. The practice of providing core funding to umbrella organizations and, in addition, recognizing their eligibility for special or project funding should be terminated.
5. The scholarship projects should be discontinued.
6. The program's objectives should more precisely define the expected results.
7. Project evaluations involving input from the developing country involved should be obligatory.

INTERNATIONAL EDUCATION AND RESEARCH

CANADIAN COMMONWEALTH SCHOLARSHIP AND FELLOWSHIP PLAN

CANADIAN INTERNATIONAL DEVELOPMENT AGENCY

DESCRIPTION

Awards are granted to students from Commonwealth countries for academic studies in Canada. The plan operates on a reciprocal basis with approximately 800 students annually. Scholarships average \$15,000 to \$17,000 per annum and cover all associated costs.

OBJECTIVE

To provide programs of advanced studies for men and women of high intellectual promise who may be expected to make a significant contribution to their own countries and to the Commonwealth.

AUTHORITY

Appropriations Act.

HISTORY

The Canadian Commonwealth Scholarship and Fellowship Plan was founded by Canada in 1959. Until recently, the plan's Canadian component was administered by the Academic Relations Program of External Affairs. In July, 1984, Canada increased its number of awards from 300 to 500 per annum.

STRUCTURE

External Affairs has responsibility for the policy aspects of the program. CIDA has responsibility for its financial management and has contracted-out the administration to the Association of Universities and Colleges of Canada (AUCC). The Commonwealth Secretariat in London is responsible for the international coordination of the plan. The Canadian selection committee consists of academics from the universities.

RESOURCES (\$000s)

	83/84	84/85	85/86
Grants & Contributions	3,700	3,950	7,420
Person-years	.3	.3	.3

BENEFICIARIES

Commonwealth post-graduate students studying in Canada.

RELATED PROGRAMS

There are no other programs operating on a reciprocal basis with other Commonwealth nations.

ASSESSMENT

In the view of the study team, the management of the plan is complicated as it involves three different organizations.

While the plan has increased dramatically over the past year, this has resulted in an increase in the number of scholarships rather than ensuring the individual awards are of a realistic value and comparable to those offered by other nations.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. The responsibility for the plan be located in one centre, either the Academic Relations Program of External affairs or CIDA, with the management of the plan continuing to be contracted-out.
2. Individual scholarships should be maintained at a value level comparable to that offered by other nations.

INTERNATIONAL EDUCATION AND RESEARCH
SCHOLARSHIP PROGRAM FOR CANADIANS
CANADIAN INTERNATIONAL DEVELOPMENT AGENCY

DESCRIPTION

A total of 18 awards (each of value up to \$15,000 per annum) is granted to Canadians on a competitive basis to pursue post-graduate studies, and to carry out a period of fieldwork on a personal project in a developing country.

Three priorities have been established:

- a. the development of food production and distribution;
- b. the development of energy production; and
- c. the development of human resources.

OBJECTIVE

The objective is to provide opportunities for Canadians to enhance their professional competence in the field of international development assistance.

AUTHORITY

Appropriations Act

HISTORY

Since the program's implementation in 1971, a total of 184 Canadians had benefitted from these awards by 1985. The initial value of each award was \$8,500 and was increased over the years to \$15,000 per year. Awards are for a maximum of two years.

STRUCTURE

Candidates are selected once a year by a committee composed of representatives of CIDA's various branches, external agencies (i.e. IDRC) and non-governmental organizations and nominated by the Minister for External Relations.

RESOURCES (\$000s)

	83/84	84/85	85/86
Grants and Contributions	400	450	500
Person-years	.25	.25	.25

BENEFICIARIES

Canadian students with interest in third world development.

ASSESSMENT

While there is liaison and collaboration between this program and similar programs within IDRC and External Affairs, there are, in the view of the study team, overlaps in scholarship and other awards activities.

The study team believes that the program's emphasis on attracting applicants who have third-world experience and who are considering a career in third-world development places it in a position of being a staff development activity.

The emphasis given in a recent review of the program to the success of scholarship recipients in finding employment in the field of international development while not a stated objective would seem to confirm this observation.

Relative to similar scholarship programs, most notably in IDRC, this program does not appear to be adequately structured or managed.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Reorganize the program to ensure it operates on the basis that academic and research quality are the sole criteria for scholarship selection.
2. (Preferred) Merge the program with the Young Canadian Research Program of the International Research Development Centre or transfer it to the appropriate granting council.

INTERNATIONAL EDUCATION AND RESEARCH

ACADEMIC RELATIONS

EXTERNAL AFFAIRS

DESCRIPTION

The program has a mandate to promote the cultural and academic understanding of Canada abroad. It provides support for the development of studies of Canada by academics of other nationalities, it manages reciprocal agreements involving Canadian and foreign academics and it provides support to Canadian delegations to official international education meetings and conferences.

OBJECTIVE

The objective is to serve Canada's foreign policy interests through the promotion of academic relations, and studies on Canadian matters by non-Canadians.

AUTHORITY

Appropriations Act

STRUCTURE

Those aspects of the program that do not involve direct relationships at the intergovernmental level are administered by contract through the Association of Universities and Colleges of Canada (AUCC) and World University Service of Canada (WUSC).

RESOURCES (\$000s)

83/84	84/85	85/86
4,218	5,160	4,266

Person-years 1985/86 - 1.25

BENEFICIARIES

Canadian students and academics, and non-Canadian academics with interests in Canadian affairs.

RELATED PROGRAMS

Programs supporting foreign students and Canadian studies in CIDA. Programs within External Affairs promoting Canada's trade and cultural interests.

ASSESSMENT

The study team believes that serving Canada's foreign policy interests is too broad and vague to suffice as an objective giving direction and purpose to a program.

It is likely that there are overlaps between this program and those offered by CIDA and IDRC.

A clarification as to the program's mandate and objectives, in order to emphasize the promotion of an understanding of Canada as a field of academic study, would enable more effective utilization of the budget.

The Awards Program, which primarily involves reciprocal agreements with other nations, needs to maintain a level of support consistent with that provided by other nations. There is some indication that Canada could be falling behind in certain instances.

The major thrusts of the program reflect particular interests in the United States and western Europe with some interest in Japan and to a lesser extent in China. In order that Canada's increasing interest and relationship with other nations be reflected, a broadening of these thrusts would appear to be called for in the study team's view.

The development of academic studies on Canadian matters by non-Canadians is clearly an integral component of promoting the international interests and stature of Canada.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

That the program be maintained and that:

- a. The program's mandate regarding the promotion of international academic relations be clarified. In particular the respective

roles and interests of this program and related programs within CIDA require clarification and definition;

- b. The present scholarships and awards be reviewed to ensure that the financial support they offer is at a general level of equity with that offered by other nations; and
- c. A more precise set of objectives be developed to ensure that Canadian studies by non-Canadian academics and the information available to non-Canadian academics is contemporary and relevant to Canada's international interests.

INTERNATIONAL EDUCATION AND RESEARCH
CENTRES FOR INTERNATIONAL BUSINESS STUDIES
EXTERNAL AFFAIRS

DESCRIPTION

The program supports the establishment of centres within university business faculties that give focus to the international (export) aspects of management. Funding of approximately \$75,000 per year is contributed to each centre with one-third of this amount being committed to a student fellowship program. Universities spend \$2,900,000 in association with these centres.

OBJECTIVES

The objectives are:

- to encourage greater emphasis on research and studies in international business at Canadian universities; and
- to provide annual fellowship awards to encourage post-graduate students in business administration to specialize in international business.

AUTHORITY

Appropriations Act.

HISTORY

In 1977, the Economic Council of Canada identified a national weakness in Canadian management from the perspective of international business. In response, the Centres for International Business Studies Program was established in the fiscal year 1978/79. Presently, centres are established in five universities with another five or six indicating an interest.

The program mandate was renewed for a five-year term in 1983/84, and the objective was established for the centres to be self-financing by 1988.

STRUCTURE

Centres are located within Business Administration faculties at Dalhousie, Hautes Etudes Commerciales (Université de Montréal), Western, and Manitoba. A variation of the approach is supported at University of British Columbia.

Centres act as a focus for studies, but do not have assigned full-time personnel. The number of full-time staff equivalents was 47 in 1982.

Each centre has an advisory board composed of a federal government member and university and private sector members. Efforts are made to ensure that the private sector representation is at least 50 per cent of the total. The boards meet two to four times a year.

RESOURCES (\$000s)

	83/84	84/85	85/86
	264	405	405
Person-years	.5	.5	.5

RELATED PROGRAMS

The broad range of programs committed to strengthening Canada's position in international trade, i.e. Export Canada, DRIE, CIDA, SSHRC.

BENEFICIARIES

Five schools of business administration, 167 fellowship students and 900 graduate and undergraduate students in 1983/84.

ASSESSMENT

The program objectives are clear and would appear to be most appropriate at a time when increasing emphasis is being given to Canada's international trade efforts.

However, the study team believes that the program has failed to substitute private funding for public sector support. In part, because of the general business climate, the interest of the private sector was not reflected in

financial support. There is some indication of increased financial interest, but it appears to the study team that the centres are unlikely to become totally funded by the private sector.

By June, 1983, the centres were producing 450 to 500 graduates with a specialization in international business. In addition, there were in excess of 400 undergraduate students majoring in International Business.

A recent evaluation stated, "while managerial education in international business is available to a limited extent at other institutions, the concentration of knowledge and expertise in the centres is unrivalled in Canada. The acknowledgement of this development can be seen in the number of students choosing to study within the centres rather than attend American institutes".

The centres have been productive in publishing some 280 texts and articles over the past seven years.

Interaction with the private sector is maintained through utilization of the advisory boards which are an obligatory requirement for each centre.

The recent evaluation of the program noted that the centres have demonstrated that they play an important role in the development of international managers and that the program is highly cost-effective.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. The program could be frozen at its present level of funding and the existing centres could be maintained with any increased funding being secured from the private sector.
2. (Preferred) The program could continue through to 1988, at which time funding for the centres could become the responsibility of the universities involved and the private sector.
3. The program could be cancelled and the continuing funding of the centres could become the responsibility of the universities involved.

INTERNATIONAL EDUCATION AND RESEARCH

CENTRE LIBRARY

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

DESCRIPTION

The library provides information to the Canadian and the international research and development community on social, economic and technological aspects of third world development. This information is made available through Canadian universities and international organizations.

The library, recognized as one of the most notable libraries, consists of some 43,000 books and documents and 5,000 serial titles. It has exchange agreements with some 700 international development institutions.

The library provides advice and training on technological, methodological and bibliographical development and standards in third world nations.

OBJECTIVE

The objective is to develop a centre of excellence with state-of-the-art technology to ensure international access to information pertaining to the development of the Third World.

AUTHORITY

IDRC Act.

HISTORY

Over the years, the library has expanded its role within the total development commitment of IDRC and is an integral component of the program.

RESOURCES (\$000s)

	83/84	84/85
Person-years	1,139 22	1,203 22

(Salaries approximately \$700,000)

BENEFICIARIES

Researchers and institutions in the developed and developing countries.

RELATED PROGRAMS

None.

ASSESSMENT

In the view of the study team, the library is efficient and effective in providing an important service to Canada's international development efforts. Its objectives are clear and consistent with the role it plays within IDRC. The program is accessible to a broad clientele base. In 1983/84, it responded to some 6,000 requests for data and it holds annual meetings with its client/users.

Access, including on-line searches, is available on a no-cost basis. This practice would appear to be one which could be modified.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining the library but also giving consideration to instituting user fees for general public usage and whenever else possible.

INTERNATIONAL EDUCATION AND RESEARCH
COOPERATIVE PROGRAMS
INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

DESCRIPTION

The program funds applied research projects to be undertaken jointly by developing country research institutions and institutions in Canada and which address a priority problem of Third World development.

OBJECTIVES

The objectives are: through collaboration with the Canadian scientific community, to strengthen the scientific and technological capacities of participating third world nations; to create channels of communication among scientists through which the results of successful Canadian research can be transferred to researchers in the third world; and to influence the direction of Canadian research toward third world concerns.

AUTHORITY

International Development Research Centre Act.

HISTORY

The program was established in response to the U.N. Conference on Science and Technology for Development, 1979. At this conference, a commitment was made to fund this program eventually to the level of 1 per cent of Canada's total official development assistance (ODA).

To date, the program has allocated funds for 89 projects to a total value of \$19.27 million, and involved researchers from 33 countries.

STRUCTURE

The program is administered by the Ottawa headquarters of the IDRC. Two regional representatives have recently been posted to Singapore and Bogota. The board of the centre consists of 11 Canadians and 10 others from third world and industrialized nations.

RESOURCES (\$000s)

	83/84	84/85	85/86
Grants	2,921	7,092	9,700
O&M	1,372	2,635	3,700
TOTAL	4,293	9,727	13,400
Person-years	17	22	29

BENEFICIARIES

Research institutions (private, academic, governmental) both in Canada and the Third World.

RELATED PROGRAMS

The Educational Institutions Program and the bilateral programs of CIDA are related.

ASSESSMENT

In the view of the study team, the program has clearly-enunciated and appropriate objectives. Its orientation is not to 'quick-fix' solutions to crises in the third world but to develop, bank and apply knowledge that contributes to long-term development. The program insists that all of its projects reflect a marriage of third world identified needs or concerns, third world expertise and Canadian expertise. Particular emphasis is given to innovation and the application of methods and technologies relevant to third-world situations.

The program's approach demands continuing consultation with its beneficiaries and this is a well-established process within the IDRC. There could on occasion be overlap with the Institutional Cooperation Program of CIDA but there appear to be channels of consultation that guard against this. On occasion, there has been agreement to jointly fund appropriate projects.

Particular emphasis is given to ensuring practicality and excellence in the projects funded. Project applications are thoroughly examined and evaluated and proceed via a senior projects committee to the board.

To ensure effectiveness, the program has restricted itself to two areas of specialization:

- earth sciences; and
- technology for local enterprises.

In the view of the study team, the program is an excellent vehicle for Canada's commitment to long-term third world development.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. The program be maintained.
2. A lead agency be given the mandate to develop greater consistency in the level of allowable costs, etc. allowed by the government's international development departments and agencies.
3. Given that technology transfer is as critical within Canada as it is elsewhere, consideration should be given to having levels of government support reflect this.

INTERNATIONAL EDUCATION AND RESEARCH
YOUNG CANADIAN RESEARCHERS PROGRAM
INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

DESCRIPTION

The program offers 12 research fellowships per year to graduate students of Canadian universities for a one-year tenure with a research institution in a developing country.

OBJECTIVE

The objective is to facilitate the involvement of younger Canadians in research on third world issues.

AUTHORITY

International Development Research Centre Act.

HISTORY

The program was created by the IDRC Board in 1982.

STRUCTURE

Open to Canadian students at the doctoral level and in some disciplines the masters' level, the fellowships of up to \$20,000 are awarded for a one-year duration. Applications are judged by the Awards Committee of IDRC.

RESOURCES (\$000s)

83/84	84/85
165	254

BENEFICIARIES

Young Canadians with professional and research interest in third world development.

RELATED PROGRAMS

The awards and scholarship programs of CIDA and External Affairs are related programs.

ASSESSMENT

In the view of the study team, the program's objective is clear and appropriate. Applications are readily available through universities. Sufficient flexibility is allowed within the award to accommodate differing demands and circumstances. Full documentation concerning the research project must be submitted to IDRC as part of an ongoing evaluation process.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. (Preferred) The program could be maintained at its present level. The amount available for awards should be reviewed regularly to ensure it is consistent with current costs.
2. Consideration could be given to having the appropriate granting council administer the awarding process on behalf of IDRC.

OTHER PROGRAM ASSESSMENTS

TAX EXPENDITURES IN THE FEDERAL SALES TAX SYSTEM

DEPARTMENT OF FINANCE

DESCRIPTION AND OBJECTIVES

Two sales tax preferences in the federal system are intended to assist the construction of school buildings and the provision of school services, at all levels of schooling:

- a. Section 45 of the Excise Tax Act provides for a refund of federal sales tax paid on construction materials used in the construction of new school buildings.
- b. Schedule III of the Excise Tax Act identifies selected items which educational institutions may purchase exempt from federal sales tax. The items include classroom furniture, scientific apparatus, teaching aids, printed matter, etc.

AUTHORITY

The Excise Tax Act.

HISTORY

Most building materials were exempt from tax until 1963, when the exemption for schools, museums and libraries was maintained, while building materials for other uses became taxable. The exemption applies only to materials for new construction. Building materials in general are considered to have preferential treatment since they are taxed at 6 per cent instead of the general 10 per cent rate.

The exemption from sales tax for purchases by educational institutions has been in the system for a number of decades. In part, it was contained in the tariffs legislation and had the effect of discriminating against the purchase of Canadian-made goods. The rationalization of the system in 1981 produced a number of changes.

STRUCTURE

The building materials exemption is achieved through a refund, upon application, of the amount of federal sales tax that has been paid on the construction materials. This is an estimate determined by applying a percentage to the total construction cost.

The exemption from tax of selected items is achieved through the use of an exemption certificate. In practice, institutions may not always receive the full intended benefit of the measure. Since the institution may be purchasing an item after tax has been paid, the vendor may offer a partial price reduction in lieu of a refund.

Estimates of the sales tax revenue foregone for these exemptions are as follows:

RESOURCES (\$000s)	83/84	84/85	85/86
Building materials	14,000	15,000	22,000
Exemption of selected items	25,000	28,000	30,000
TOTAL	39,000	43,000	52,000

BENEFICIARIES

Since these selective tax measures apply to all educational institutions and have been in effect for a long time, it is highly probable that the chief intended beneficiaries were school boards, that is, property tax payers. Given the greatly increased role that provincial governments now play in the financing of all levels of education, major beneficiaries at the present time are probably the provincial governments.

ASSESSMENT

The study team does not have any particular competence to make judgements concerning the equity, efficiency or economic impact of these selective tax measures. It has

been suggested to the study team that a refund system may be more effective than an exemption system in directing the whole benefit to the intended beneficiary. It should be noted that the large annual increase in the estimated cost of the measures results largely from the periodic increase in the rate of tax.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Continue the exemptions/refunds.
2. (Preferred) Discontinue the exemptions/refunds.

OTHER PROGRAM ASSESSMENTS

TAX EXPENDITURES IN THE INCOME TAX SYSTEM

DEPARTMENT OF FINANCE

DESCRIPTION AND OBJECTIVES

There are four selective provisions in the personal income tax system which favour post-secondary students, another provision which encourages parents to set aside money for their children's post-secondary education, a provision in both the personal and corporate income tax systems which encourages donations to schools, and a provision in the corporate tax system which encourages research activity.

- a. Tuition Fee Deduction. Section 60 (e)(f)(g) of the Income Tax Act allows individuals to deduct from income for tax purposes tuition fees paid if over \$100.
- b. Education Deduction. Section 110 (1)(g) of the Income Tax Act allows full-time post-secondary students to deduct from their income for tax purposes an amount of \$50 per month of school attendance.
- c. Scholarship Exemption. Section 56 (1)(n) of the Income Tax Act permits scholarship winners to deduct from income for tax purposes the first \$500 of scholarship receipts.
- d. Child Tax Exemption. Section 109 (1)(d) of the income Tax Act permits a specified deduction from income for the parents (or sibling in section 109 (1)(f)) of a dependent full-time student aged 21 or over.
- e. Registered Education Savings Plan (RESP). Section 146.1 of the Income Tax Act allows parents to set aside funds for their children's later education without being subject to tax on the interest earned by the funds at the time it is earned.
- f. Charitable Donations. Section 110 (1)(a) of the Income Tax Act allows individuals and corporations to deduct from income for tax purposes their

donations to educational institutions, to a limit of 20 per cent of income.

g. Research and Development. The tax incentives for industrial research and development are twofold:

- eligible expenditures (both current and capital) are deductible from income in the year in which they are incurred; and
- eligible expenditures to a limit of \$700,000 also earn a refundable tax credit. (Eligible expenditures do not include research expenditures in the social sciences or humanities, or expenditure on such related scientific activities as monitoring, testing, routine data collection, etc.)

AUTHORITY

The Income Tax Act.

HISTORY

The tuition fee deduction originated in 1961. At that time, all tuition fees for full-time post-secondary attendance were deductible. In 1964, it was amended to include tuition fees paid by part-time students with a threshold of \$25. This threshold was raised to \$100 in 1982. The education deduction and the RESP were introduced in 1972, as part of the income tax reforms of that year. The exemption of the first \$500 of scholarship, which also began in 1972, actually represented some loss to taxpayers, as previously all scholarship income had been tax-free. The deduction from tax for charitable donations is a long-standing element of our tax system. The limit on deductible donations for corporations was raised from 5 to 10 per cent of income in 1958, with the specific purpose of encouraging corporations to play a bigger role in providing universities with the capital funds they were seeking for expansion. At present, the upper limit is 20 per cent of income in any years, with any amount in excess being carried forward for up to five years. While the basic intent behind these selective tax measures is to encourage education, there have been administrative and other reasons for making changes in their detailed provisions from time to time.

STRUCTURE

With the exception of the RESP and the industrial R&D incentive, these measures are structured as straightforward deductions from taxable income. For RESPs, the principal invested is not sheltered from tax, but the interest it earns is taxable only when received by the student and is not attributed to the parent nor taxed in the year when earned. Income is therefore both deferred and taxed at a lower marginal rate than would otherwise be the case.

Two companies have offered RESPs in recent years (Canadian Scholarship Trust Plan and University Scholarships of Canada) but this number has now increased to six. Parents purchase from two to six "units" per child. The required contributions are not large. There is an element of gambling in these plans since, if the children do not subsequently take eligible post-secondary programs, they receive no benefit, and the parents only receive a refund of contributions without interest, less a substantial enrolment fee, typically \$500.

Provinces having tax collection agreements with Ottawa share in the tax expenditures of these measures because the measures reduce the tax base. On average, the provincial tax expenditure is about 50 per cent of the federal tax expenditure. With the exception of the education deduction, all of these provisions also appear in the Quebec income tax system.

RESOURCES (\$000s)

Only estimates of the federal revenue losses from these preferences are available, as shown below:

	83/84	84/85	85/86
Tuition fee deduction	57,000	59,000	62,000
Education deduction	42,000	45,000	45,000
Scholarship exemption	7,000	7,000	7,000
Child Tax Exemption	41,000	44,000	46,000
RESP	5,000	4,000	5,000
Charitable donations (to schools)	37,000	40,000	42,000
Industrial R&D	N/A	N/A	N/A
TOTAL	189,000	199,000	207,000

BENEFICIARIES

About 1.1 million tax-filers benefited from the tuition fee exemption in 1983. This exemption is available to both full-time and part-time students, but may not be transferred to any other taxpayer. The estimated average marginal tax rate of this exemption is low, only about 9 per cent, indicating that a large proportion of the claimants have low incomes. (The impact on tax revenues foregone of a substantial increase in tuition fees would likely not be significant).

The education deduction of \$50 per month of school attendance is only available to full-time post-secondary students but any amount above that required to reduce their taxable income to zero may be transferred in whole or in part to a spouse or supporting parent. In 1983, there were over 800,000 filers claiming this deduction, 590,000 of them with taxable income. The estimated marginal tax rate on average was 16 per cent, i.e. considerably higher than the marginal tax rate of tuition fee deduction claimants. The comparison indicates that this deduction from income has benefit for higher-income earners. (The estimated average marginal tax rate for all tax-filers was 22 per cent).

In 1983, approximately 190,000 students claimed deductions of scholarship income. The child tax exemption benefitted about 155,000 students.

Approximately 150,000 RESP agreements are held by the two major RESP companies.

No information is available on the tax-filers who claimed the charitable donations deduction as it relates to educational institutions; even the amount has to be estimated, as information in this category of deductions from income is available only on the total.

The tax measure to encourage R&D is within the mandate of the study team only so far as it affects (i.e. induces) research done at educational institutions. In 1983/84, industry contracted out only \$26 million of research to universities, only a portion of which would have been eligible for the favourable R&D tax treatment.

RELATED PROGRAMS

Student assistance programs, federal and provincial, are closely related to these tax provisions. Additionally, to the extent that scholarships come from the public purse, the level of their exemption from income is a related matter of interest.

ASSESSMENT

In the view of the study team the objectives of the various tax provisions for individuals appear relevant. Issues arise concerning: a) whether part-time students should be entitled to a monthly deduction from income, as full-time students are; and b) whether RESPs are a sufficiently useful savings device for parents to warrant their encouragement. The tax treatment for RESPs is used as a selling point by the corporations which sell these plans. However, the study team does not believe that these plans are good savings vehicles and, as participation rates in post-secondary schooling increase, the plan administrators may make it more difficult for students to qualify for benefit.

With respect to the corporate income tax measures, that is, the charitable donations deduction and the R&D incentives, the questions which arise concern their effectiveness in relation to their cost. In the case of R&D, the tax treatment appears to have very little impact on formal educational institutions and the study team has not considered this matter further.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. No change to the tuition fee deduction. The threshold was very recently raised from \$25 to \$100 to reduce administrative burden. The major options are to eliminate the deduction, to retain it as is, or to consider converting it into a credit if it is desired to increase the favourable treatment of students.
2. No change to the education deduction. The options extend from removing the deduction to increasing it (on the grounds that \$50 per month does not

represent as much as it did initially) or extending the deduction to part-time students, as they have frequently requested.

3. No change to the scholarship exemption.
4. No change to the child tax exemption. The options are to continue the exemption on to terminate it.
5. Eliminate the Registered Education Savings Plan. The options here are to leave the exemption as it is, or to close it down. This exemption should be closed down on the grounds that it is distorting family savings decisions in a direction which is not beneficial to the families.
6. No change to the charitable donations. Options here are to retain the present system or to move to a tax credit system, as advocated by the voluntary associations.

OTHER PROGRAM ASSESSMENTS

DUFF-RINFRET SCHOLARSHIPS

DEPARTMENT OF JUSTICE

DESCRIPTION

This program promotes advanced study (LL.M.) in areas of law relevant to the federal jurisdiction. It recognizes excellence by awarding scholarships to seven law graduates with outstanding academic records and/or excellence in the practice of law. In 1984, a scholarship was valued at \$11,000 plus fees, travel allowance and thesis allowance (\$800).

OBJECTIVES

To recognize excellence and promote graduate law studies in areas of federal jurisdiction.

AUTHORITY

The Appropriations Act.

HISTORY

The program was initiated in 1975 in recognition of the centennial celebration of the Supreme Court. Originally, it was intended to recognize excellence and to promote graduate law programs but this is not seen as realistic at the present time. Currently, the sole purpose of the program is to recognize excellence and promote research that is relevant to the federal jurisdiction.

The original intent was to award 17 scholarships (one in each law school), but now the program is limited to seven.

The award is viewed as prestigious within the academic and legal communities.

On occasion, the award is refused because the recipient wishes to study abroad.

Universities may supplement this scholarship with endowment funds. Therefore, some law schools are more attractive than others.

The scholars produce learned texts and research in areas of federal jurisdiction.

STRUCTURE

A committee, chaired by a member of the bench, with membership from the department, the Canadian Association of Law Teachers, civil law and common law communities, recommends the awards.

The program is administered by the Department of Justice.

RESOURCES (\$000s)

	83/84	84/85	85/86
Person-years	100 .6	113	113

BENEFICIARIES

Seven post-graduate law students per year.

ASSESSMENT

The original intention was to develop a scholarship program that would promote graduate law studies in addition to recognizing excellence. The development of graduate studies, however, has now been dropped as an objective and the total program is directed to rewarding seven post-graduate students. Originally the program was to award 17 such scholarships.

While the program is regarded as prestigious by members of the legal community, its broader impact is minimal in the view of the study team.

OPTIONS

The study team recommends to the Task Force that the government consider inviting the legal profession, e.g. the Canadian Bar Association, to accept total funding and administrative responsibility for this program. A one-time grant equivalent to two years' operation could serve as the basis of a foundation to be augmented and managed by the legal profession.

OTHER PROGRAM ASSESSMENTS

LAW EXCHANGE PROGRAM

DEPARTMENT OF JUSTICE

DESCRIPTION

Established in 1973, the Law Exchange Program (LEP) is designed to promote understanding of the other Canadian legal system among civil and common law students. Twenty-four students from Quebec and 24 from other provinces, with basic knowledge of the other official language, study the other legal system for seven weeks and are brought together for a three-week, comparative-law program.

OBJECTIVES

The LEP promotes understanding of the other (i.e. civil or common law) Canadian legal system.

AUTHORITY

The Appropriations Act.

HISTORY

Initiated in 1973, the LEP originally involved some 68 students, a number later increased to 48. The program was reduced by 30 per cent in 1985/86.

STRUCTURE

Approximately 210 law students apply to the LEP annually. Those chosen are from the top 50 per cent of their class and have knowledge of the second official language. The universities of Sherbrooke and Dalhousie are responsible for the on-site administration with the Department of Justice assuming overall administrative responsibility.

RESOURCES (\$000s)

	83/84	84/85	85/86
	349	358	258
Person-years	.6	.6	.6

BENEFICIARIES

Forty-eight second- and third-year law students.

RELATED PROGRAMS

None.

ASSESSMENT

While the LEP's objective of promoting understanding of Canada's two legal systems and its exercise in bilingualism are worthwhile, its scope and number of participants is limited.

The program offers a summer study experience for second- and third-year law students who receive a \$1,500 bursary on completion of their study. When costed-out at approximately \$14,000 per student including \$42,000 paid by contribution agreements to the two sponsoring universities for course materials and staff, this is an expensive program.

OPTIONS

The study team recommends to the Task Force that the government consider the following:

1. Discontinue the LEP.
2. Invite the Canadian Bar Association, in cooperation with the universities involved, to operate the program on a cost-recovery basis.

OTHER PROGRAM ASSESSMENTS

QUEEN ELIZABETH SILVER JUBILEE ENDOWMENT FUND

SECRETARY OF STATE

DESCRIPTION

The Queen Elizabeth Silver Jubilee Endowment Fund provides six scholarships annually to full-time Canadian university students to allow them to pursue undergraduate studies for one year in their second official language.

OBJECTIVE

To encourage young Canadians who wish to become proficient in their second official language to undertake one year of undergraduate study in that language.

AUTHORITY

The Appropriations Act.

HISTORY

The endowment fund was created in 1977. The scholarship program, through the interest earned on the \$300,000 endowment, funds up to six scholarships for full-time university students who wish to pursue their undergraduate studies in their second official language. Since 1977, 28 awards have been made.

STRUCTURE

The scholarship program is administered by the Association of Universities and Colleges of Canada (AUCC) on behalf of the Secretary of State. Candidates must be nominated by member institutions of the AUCC. Recipients are drawn from both official language groups; they must be citizens or permanent residents of Canada who have successfully completed at least one year of university. Scholarships are not renewable. Award holders receive certificates of merit from the Governor General in an annual ceremony.

RESOURCES

The scholarship program runs on the interest earned on the \$300,000 endowment created in 1977, which is held in trust by the AUCC.

BENEFICIARIES

Up to six undergraduate students each year receive \$5,000 and transportation expenses to the university of tenure. The endowment also pays for their travel to the ceremony for the presentation of the certificates.

RELATED PROGRAMS

The Official Languages in Education Program supports bursaries to promote second language acquisition, but in a lesser amount and of a less prestigious nature.

ASSESSMENT

The scholarship program is wholly endowed and does not duplicate any other federal program. The results would be difficult to evaluate because of the small number of recipients. There seem to be no reasons to undertake further review of this activity.

OPTIONS

The study team suggests no change to this program.

RECORD OF CONSULTATION

1. NATIONAL ORGANIZATIONS

Assembly of First Nations

Kenneth Deer
Gerald Kobb
George W. Miller (Director of Education)

Association of Canadian Community Colleges

R. Bruce McAusland (President)
William Forbes
Donald Glendenning
Ann Kitching
Gordon A. Thom
Robert LaRose (Executive Director)

Association of Universities and Colleges of Canada

W. Andrew MacKay (President)
David Johnston
Arnold Naimark
David C. Smith
Allan Gillmore (Executive Director)
Pierre-Yves Boucher (Assistant Executive Director)
Robert Patry (Director, Government Relations)

Canadian Association of University Teachers

Sarah Shorten (Past President)
Ed Anderson (President)
Richard Bellaire
Donald Savage (Executive Secretary)

Canadian Federation for the Humanities

Thomas Robinson
Viviane Launay (Executive Director)

Canadian Federation of Students

Barbara Donaldson (President)
John Casola (Executive Officer)
Anne-Marie Turcotte

Canadian Federation of Teachers

Wilf Brown (President)
Jean-Marc Cantin
Frank Garrity
Austin Thorne (Canadian Federation of Labour)

Canadian Institute for Advanced Research

J. Fraser Mustard (President)
Ruth Macdonald

Social Sciences Federation of Canada

Alan Artibise (President Elect)
Edwin R. Black
Todd Rogers
Christian Pouyez (Executive Director)

2. FEDERAL OFFICIALS

Agriculture Canada

M.J. Cardinal, Director General, Personnel
Administration
C. Winget, Director General, Research & Technical,
Canadian Forestry Services
R.L. Halstead, a/Director, Research

Atomic Energy Control Board

J.W. Beare, Director, Regulatory Research

Auditor General

W. Dickson, Assistant Auditor General
L.S. Ting, Principal
Maria Barrados, Director

Canada Mortgage and Housing Corporation

Bill Griggs, Director, Research

Canadian International Development Agency

Marc Dolgin, Director General, Institutional
Cooperation and Development

J. Ali-Khan, Director, Educational Institutions Program

Canadian Transport Commission

Richard Lake, Executive Director, Research Branch

Department of Communications

J. Rousseau, Director, Research Policy and Plans

Consumer and Corporate Affairs

E. Carson, Director, Audit, Evaluation & Control

P. Lantos, Director, Planning and Management Services

Correctional Services Canada

Gerry Hooper, Director General, Education, Training and
Employment

Economic Council

Peter Cornell, Director

Energy, Mines and Resources

F. Campbell, Director General, Corporate Planning and
Analysis

G. Pearce, External Research Programs

Environment Canada

R.D. McCormack, Special Advisor, Environmental
Conservation Service

External Affairs

K. Sunquist, Director, Export Information

J. Snyder

Brian Long, Deputy Director, Academic Relations

Finance

Jean Fournier, Assistant Deputy Minister, Federal
Provincial and Social Policy

James Lynn, Director General, Federal Provincial and
Social Policy

Anne Park, Director, Federal Provincial

Brian Wurts, Tax Analysis Section

Paul Dick

Fisheries and Oceans

B. Muir, Director General, Fisheries Research

D. Good, Director General, Strategic Policy and
Planning

M. McMullen, Director, Policy and Program Coordination

N. Campbell, Director General, Marine Services and
Information

Health and Welfare

R.A. Heacock, Director General, External Research
Programs, Health Promotion Branch

Peter Cameron, Director General, Policy, Planning and
Liaison, Medical Services Branch

Al Garmon, A/Director, Indian and Inuit Health Policy

Richard Jock, A/Director, Indian and Inuit Health
Services

Bill Bradford

Mike McKenna

Maria McNaughton

Marc de Lanux, Director General, Social Development

Esther Kwavnik, Director, National Welfare Grants

E. Somers, Director General, Environmental Health

Janice Hopkins, Director, Management Processes, Health
Protection Branch

William Tholl, Policy Analyst

Indian Affairs and Northern Development

D. Chatain, Director General, Education and Social
Development

P. Bisson, Director, Education

D. Wetherup, Director General, Renewable Resources and
Northern Environment

J. Waihie, Head, Post-School Programs

A. Jamieson, Education Advisor

International Development Research Centre

J. Mullins, Vice-President, Collaborative Programs

Justice

J. Godin, Programs and Projects Administration

Medical Research Council

Pierre Bois, President

G. Leduc, Executive Secretary

National Defence

Col. St. Kincaid, Director, Individual Training

Lt. Col. Savage

Cmdr. Rowse

H. Hubley

Barbara McRoberts, Director, R&D Program Control

National Research Council

B. Gingras, Executive Vice President

Natural Sciences and Engineering Research Council

Gordon MacNabb, President

Leo Derikx, Director, Planning and Budgeting

M. Brochu, Director, Communications

Regional Industrial Expansion

D. Demalto, Director General, Service to Industries

T. Hopwood, Manager, Program Development

A. Martel, Senior Policy Analyst

Science Council of Canada

Stuart Smith, President

Secretary of State

Robert Rabinovitch, Under Secretary of State

Lise Brisson-Noreau, A/Assistant Under Secretary of
State, Education

Nigel Chippendale, Director, Policy and Analysis

Paul Emile Leblanc, Director, Centres of Specialization

James Page, Director, Canadian Students
E.J. Watson, Director, Student Assistance
Madeline Kallio, Chief, Analysis and Program
Development
Mark Goldenberg, Director, Official Languages in
Education
Lyse Blanchard, Director, Women's Program
Manuel de Costa, A/Director, Culturel and Education
Programs
Judy Young, Head, Culture and Academic Relation

Social Sciences and Humanities Research Council

W.E. Taylor, President
G. Bouliane, Treasurer
E.v.C. Bruce, Director General, Programs

Solicitor General

John Evans, Director General, Research and Statistics

Statistics Canada

James MacDonald, Director, Education, Culture and
Tourism
Ed Wicks, Assistant Director, Education
Yves Dupuis, Head, Education Finance
Max von Zur Muehlen, Senior Research Scientist

Transport Canada

Jim Miller, Director General, Planning and Policy
Michel Desjardins, Director General, Training

Treasury Board

Program Branch:

Hani Mokhtar
Michel Pilote
Steve Assaly
A. Goneau
Len Endemann
Bob Mercer
T. Brown
J. Brockway
K. Wiseman
R. Gagne

S. Laprade-Burke
Allan Mau
Sam Kalinowsky
John Dingwall

Veterans Affairs

Roger Gallant, Planning and Coordination
Debbie Ramsay, Income and Special Programs

Study Teams

Larry Potvin - Transport
Gilles Letourneau - Transport
Kathy Moses - Culture and Communication
Joan Nuffield - Justice

3. PROVINCIAL AND TERRITORIAL OFFICIALS

Newfoundland

Finance

Ed Powers, Assistant Deputy Minister, Fiscal Policy

Advanced Education

Cyril McCormick, Asst. Deputy Minister

Intergovernmental Affairs

John Abbott
Barbara Knight

Prince Edward Island

Finance

Phil MacDougall

Education

Charlie Campbell, Deputy Minister
Tilmon Gallant

Intergovernmental Affairs

John Phillips

Nova Scotia

Finance

Doug Tobin, Assistant Deputy Minister
Marilyn Gaudet
Diane Cox

Education

G.J. McCarthy, Deputy Minister
Fay Lee

New Brunswick

Cabinet Secretariat

Laura Freeman
Dan Horsman
Mavis Hurley

Finance

Bob Kelly

MPHEC

Lawrence Durling, Acting Chairman
Helmut Schweiger

Education

Harvey Malmberg, Deputy Minister

Community Colleges

Jean Guy Finn, Deputy Minister

Youth

Ernie McKinnon, Deputy Minister

Intergovernmental Affairs

Don Dennison
Barry Toole

Quebec

Higher Education and Science and Technology

Camille Limoges, Deputy Minister
Michelle Fortin, Assistant Deputy Minister

Education

Roger Haeberle, External Relations
Jean Marc Peters, External Relations
Jean Marie St. Jacques, Indians and Inuit

Intergovernmental Affairs

Michel Hamelin

Ontario**Colleges and Universities**

A.K. Adlington, Deputy Minister
R. Benson, Assistant Deputy Minister
W.H. Clarkson, Director, Student Awards Branch
R.L. Cummins, Director, University Relations Branch
J. Fleischer, Planning and Coordination Secretariat
Carolyn Barrett, Executive Assistant to the Assistant
Deputy Minister

Education

D.Green, Assistant Deputy Minister, Education Programs
D.A. Penny, Assistant Deputy Minister Education
Technology Development Division
Rosaire Cloutier, Acting for Assistant Deputy Minister
Franco-Ontarian Education
Roy Schatz, Special Projects Branch
G.D. Bergman, Director, Research and Information Branch
Brenda Kritzer, Manager, Operational Planning and
Development
Keith Lickers, Curriculum Branch

Treasury and Economics

Ronald J. McGinley, Senior Policy Advisor, Federal
Provincial Fiscal Analysis

Industry, Trade and Commerce

Martin Walmsley, Innovation and Technology

Intergovernmental Affairs

Anne Ritchie

Manitoba**Finance**

Ron Neumann

Education

Ron Duhamel, Deputy Minister

Ray Hullen, Student Aid

Dan Haughey, Planning and Research

Guy Roy, Official Languages in Education

Victor Tétrault, Official Languages in Education

Flora Zaharia, Native Education

Universities Grants Commission

Allan Goldstine, Chairman

Intergovernmental Affairs

James Eldridge

Saskatchewan**Finance**

Hugh Walker, Director, Taxation and Economic Policy

Education

Lou Jule, Official Minority Language Office

Advanced Education and Manpower

John Law, Deputy Minister

Science and Technology

A. Guy, Deputy Minister

Intergovernmental Affairs

George Hood

Alberta**Treasury**

Grant Robertson

Lynne Duncan

Education

Irving Hastings

Merv Kowalchuk

Advanced Education

Des Berghofer, Assistant Deputy Minister

Bastiaan Heemsbergen

Research Council

Duncan Currie

Student Finance Board
Fred Hemingway

Intergovernmental Affairs
Oryassiu Lennie
Paul Whittaker
Nancy Stewart

British Columbia

Finance
David Emerson, Deputy Minister
Doug Hyndman, Deputy Secretary, Treasury Board

Education
J. Carter, Deputy Minister
J. Newberry
L. Thompson
P. Adams

Science, Universities and Community Colleges
D. Goard

Advanced Technology and Research
Alan Cornford, Assistant Deputy Minister

Yukon

Finance
David Smith

Education
Dan Odin, Assistant Deputy Minister
Bill Ferguson
J.P. Flament
Colin Hartwell
Marjorie Wearmouth
Helen Weigel

Science Institute
David Leverton

Intergovernmental Relations
Dave Skidd

Northwest Territories

Finance

T. Butters, Minister
E. Nielsen, Deputy Minister
L. Voytilla
M. Melhorn

Education

D. Patterson, Minister
J. Handley, Deputy Minister
K. Lovely, Assistant Deputy Minister, Advanced
Education
E. Duggan
K. Norton
D. Bohnet

Renewable Resources

D. Gladders
B. Bell

4. INDIVIDUALS

David Cameron, Vice President, University of Toronto
William Elliot, President, University of Prince Edward
Island
Paul Gallagher, Vancouver City College
Al Johnson, Ottawa
Jim Harrison, Chairman, Science Institute of the
Northwest Territories
Peter Kuitenbrouwer, Canadian University Press
David Nowlan, Vice President, University of Toronto
Walter Light, Retired Chairman, Northern Telecom
Richard Van Loon, Macdonald Commission Researcher
William Winegard, Member of Parliament
Douglas Wright, President, University of Waterloo
Miles Wisenthal, International Development Office, AUCC
Clair Callaghan, Technical University of Nova Scotia
Rod McLennan, Nova Scotia Royal Commission on
Post-Secondary Education
Russell Hatton, President, Atlantic School of Theology
Garry Kennedy, President, Nova Scotia College of Arts
and Design
John Keyston, Executive Director of the Association of
Atlantic Universities

Andrew MacKay, President, Dalhousie University,
Greg MacKinnon, President, Saint Francis Xavier
University, Chairman, Council of Nova Scotia
University Presidents
James Perkin, President, Acadia University
Roseanne Runte, President, Université Ste-Anne
Kenneth L. Ozmon, Saint Mary's University, Chairman,
Atlantic Association of Universities

